FINANCIAL TIMES

EUROPE'S BUSINESS NEWSPAPER

No. 29,991 Monday July 28 1986 D 8523 B

Westland's flight from fantasy to fiasco, Page 14

World news — Business Summary

New Delhi police hold 800 after rioting

Police arrested 800 in New Delhi and a tenth of the Indian capital was put under curfew after clashes between Hindus and Sikhs in which eight people were killed and 60 wounded.

The riots were sparked off by the killing, last week, of 14 bus passengers, all Hindus except one, by Sikh extremists campaigning for a separate nation.

Troops were sent into the eastern Indian town of Kalimpong to enforce a curfew imposed after police shot dead five Gurkhas and wounded several others in riots over a campaign for autonomy. Page 2

Bush in Middle East

US Vice-President George Bush arrived in Israel to begin a three nation Middle East tour which has taken on new political significance because of Israeli Prime Minister Shimon Peres' landmark summit in Morocco. Page 2

Hostage released

American priest Lawrence Jenco arrived at the US Rhein-Main airbase in West Germany after being held hostage in Lebanon for 18 months by the Islamic Jihad.

Anti-Aquino killing

Followers of ousted leader of the Philippines, Ferdinand Marcos, killed a supporter of President Corazon Aquino during an anti-government rally in central Manila

Thai poll murders

Five murders, scattered shelling and charges of vote-buying marred otherwise peaceful elections in Bangkok aimed at building a new coalition for Thailand's Prime Minister Prem Tinsulanonda.

Chairman sought

King Hassan of Morocco has resigned as chairman of Arab summits because of criticism over his meeting with Israeli Prime Minister Shimon Peres. Page 2

Landslide death toll

The death toll in a landslide that destroyed two houses in the southern Italian village of Senise rose to eight when rescue workers found the body of a nine-year-old girl.

Iraqi air raid

Iran reported an Iraqi air raid on the industrial city of Arak, 150 miles (240km) southwest of Tehran, and said several people had been killed.

Ten die in rail crash

Ten people died after a collision between a train and a van at a road crossing in Humberside, north-east England.

Trawler drugs haul

Spanish police in the northern port of La Coruna arrested nine people and seized 158lb (71.8kg) of cocaine with a street value of $15m aboard a Colombian trawler bound for the US.

Wheat export plea

Australian Primary Industry Minister John Kerin will lead a delegation to the US this week to try to persuade the Government to reverse a decision to extend subsidised wheat exports to China and the Soviet Union, both important markets for Australian wheat.

Lemond wins Tour

Greg Lemond became the first American to win the three-week Tour de France cycle classic, beating five-times-winner Bernard Hinault (France) by three minutes 10 seconds.

Piquet's grand prix

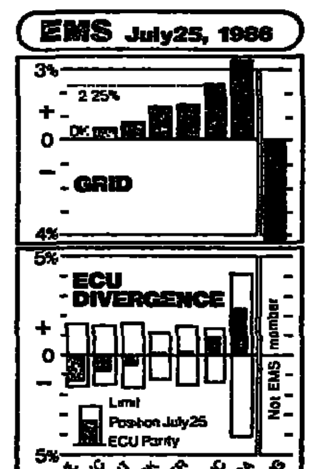
Brazilian Nelson Piquet won the West German grand prix at Hockenheim. Ayrton Senna (Brazil) was second and Nigel Mansell (Britain) third.

Wrangler group in $800m takeover

BLUE BELL, second largest US jeans manufacturer with its Wrangler brand, is to be acquired by VF Corporation, a fast-expanding Pennsylvania textiles group, in a deal worth more than $800m. The takeover will produce the country's biggest clothing concern.

SONATRACH, the Algerian state oil and gas corporation, is under pressure to change the way it calculates natural gas prices in the face of falling oil prices. Page 3.

EUROPEAN MONETARY SYSTEM: The Danish krone was weaker in the EMS last week but remained within its divergence limit. There was no real pressure on the weaker currencies although a continued rise in the value of the West



German D-Mark against the dollar could pose problems for the weaker members. The Italian lira was again the strongest currency, unaffected by problems resulting from the recent fall of the ruling Government coalition.

The chart shows the two constraints on European Monetary System exchange rates. The upper grid, based on the weakest currency in the system, defines the cross rates from which no currency (except the lira) may move more than 2¼ per cent. The lower chart gives each currency's divergence from its "central rate" against the European Currency Unit (ECU), itself a basket of European currencies.

TOKYO shares on Saturday experienced their first fall for five sessions as investors took profits. The Nikkei market average closed 52.30 lower at 17,938.29.

ASSETS of foreign banks in Japan declined in the year to March 31, reflecting the difficulties involved in breaking into Japanese lending markets. Page 16.

BRITAIN is spending less on scientific research per person than the US, Japan, West Germany, France or the Netherlands, says a UK government report. Page 4.

BIG FOUR clearing banks in Britain – Barclays, NatWest, Midland and Lloyds – are expected to show an increase in total first-half profits of 20 to 25 per cent, according to City of London bank stock analysts. Page 4.

BRITAIN'S MOTOR industry's balance of trade deficit deteriorated further in the first quarter of this year with the deficit growing by 36.2 per cent to nearly £1bn ($1.4m). Page 4.

NORMED, the French shipbuilding concern recently forced to file for bankruptcy after the right-wing government withdrew French shipyard subsidies, has been of interest to several Middle East investors. Page 19.

TEXAS INSTRUMENTS, the largest US semiconductor manufacturer has returned to profitability in the second quarter for the first time since the first quarter of 1985 with net income of $12.2m compared with a loss of $3.9m in the same quarter last year. Page 19.

TEXACO, the US oil group, and Shell Oil, the American subsidiary of Europe's Royal Dutch-Shell, both recorded significant second-quarter earnings reverses, reflecting the slump in crude oil prices. Page 17.

Howe delivers new warning to Botha in bid to save mission

BY ROBERT MAUTHNER IN PRETORIA

SIR GEOFFREY HOWE, the British Foreign Secretary, last night warned Mr Pik Botha, the South African Foreign Minister, that his Government would have to make an important gesture, such as the release of Mr Nelson Mandela, the African National Congress leader, if it wanted to pre-empt further international action against Pretoria.

The tough message from Sir Geoffrey, who is leading a peace mission to South Africa on behalf of the 12-nation European Community, was delivered at an unscheduled meeting between the two foreign ministers, their second since last Wednesday.

Last night's talks, at which officials said Sir Geoffrey indulged in "some very plain speaking" in an effort to save his mission from failure, will be followed tomorrow by a more important second meeting with Mr P. W. Botha, the South African President.

These discussions will be Sir Geoffrey's last chance before the Commonwealth mini-summit in London on August 3 and August 4 to persuade President Botha to announce steps which would convince the world that he is serious about ending apartheid and giving blacks a greater say in running South Africa.

Reports that the British Prime Minister, Mrs Margaret Thatcher, was planning to come to South Africa next month to try to pull the peace mission's irons out of the fire, were denied by British officials yesterday. Sir Geoffrey and the South African leaders had not discussed such a possible meeting.

After five days in southern Africa, during which Sir Geoffrey has also paid lightning visits to Zambia, Botswana, Swaziland and Lesotho, the peace mission's prospects appear decidedly gloomy.

Sir Geoffrey has found no evidence to convince him that President Botha and his Government are prepared for what the Foreign Secretary has described as the "imaginative leap" required to save South Africa from descending into "a spiral of violence and economic warfare."

On the contrary, the South African press is full of articles claiming that President Botha is thoroughly "fed up" with foreign interference in the affairs of his country. The Pretoria Government is also reported to be making preparations to circumvent any sanctions that might be adopted and for retaliatory action against the African frontline states.

Sir Geoffrey's tactics for beginning a dialogue between the Pretoria regime and the country's black leaders have become clearer as his mission has progressed. Officials have stressed that the Foreign Secretary does not expect all the concessions to come from Pretoria, although he is equally emphatic that the South African Government must make the first substantial move to break the logjam.

That first step, which would be of symbolic as well as practical importance, should be the release of Mr Nelson Mandela, according to Sir Geoffrey. However, it would not be a unilateral gesture. In return, Sir Geoffrey hopes to persuade Mr Oliver Tambo, the exiled ANC leader, to commit his organisation to a suspension of violence, at least during the proposed talks between the ANC and the South African Govern-

Continued on Page 16

Pretoria retains curbs on blacks' movements, Page 2

Hopes fade of action by Opec to raise oil price

BY RICHARD JOHNS IN GENEVA

THE PROSPECTS of the Organisation of Petroleum Exporting Countries reaching agreement on a plan to revise output quotas looked dim as delegates assembled for a ministerial conference beginning today.

There is general pessimism about chances of members reversing the slide in oil prices through production quotas even under a ceiling of 17.9m barrels a day. This is the level that the majority of member states concluded at the last meeting in Brioni Yugoslavia, a month ago would be justified by the demand in the last quarter of 1986.

The new proposal, put forward at the end of the Brioni meeting by Dr Subroto, Indonesia's energy minister, is for a ceiling of 17.6m b/d, reckoned to be the demand for Opec crude for the full year.

Since the Brioni meeting President Saddam Hussein of Iraq, in particular, has categorically stated that his country will not accept any output quota smaller than that conceded to Iran. For its part, Iran is still uncompromising in its insistence that it will match any incremental Iraqi barrel with two of its own.

To compound problems further, there has been no shift in the position of the United Arab Emirates, Opec's other main problem. Dr Mana Saeed Otaiba, the UAE's Oil Minister, made it clear that Saudi Arabian and Kuwaiti diplomatic efforts had failed to modify the demand of the emirates. It wants a quota of no less than 1.5m b/d under any sharing scheme, compared with 950,000 b/d granted it under the defunct ceiling of 16m b/d agreed in 1984.

In this situation the plan submitted to governments of member states by Dr Subroto at the end of the Brioni meeting looked to be of academic interest.

Based on what each individual member regarded as a share division under a ceiling of 17.6m b/d his arithmetic would give Iran 2.4m b/d and Iraq 1.6m b/d for instance. Under the old system their quotas were 2.3m b/d and 1.2m b/d respectively.

Under the Subroto proposal the UAE's allocation was calculated at 1.075m b/d. His plan was an ingenious attempt to break the deadlock in an equitable fashion, since they were taken back to the 13 capitals in sealed envelopes. Opec output is reckoned to have risen in July to about 20m b/d compared with rather more than 19m b/d in June.

The increase is almost wholly accounted for by Saudi Arabia's surge in production.

Sheikh Ahmed Zaki Yamani, the Saudi Oil Minister, declined to give details of his country's rate of output. But the average for July is likely to be 5.7–5.8m b/d according to the Middle East Economic Survey (MEES). That compares with the maximum of 4.35m b/d conceded to the kingdom under the 16m b/d ceiling.

Riyadh's strategy, which has been mainly responsible for forcing spot market prices in Gulf crude to below $8 a barrel, is apparently aimed at cajoling other members into an accord

Stalemate in chips trade talks

BY LOUISE KEHOE IN SAN FRANCISCO

HOPES FOR a settlement of the bitter US-Japanese trade dispute over semiconductors appeared to dim at the weekend as a Saturday deadline for the conclusion of negotiations passed without agreement.

Senior US and Japanese trade officials meeting in Washington adjourned their talks with the US Government reaffirming its determination that the negotiations must end by this Wednesday.

"If there is no settlement by then, we will take unilateral action," said an official from the US Trade Representative's office. July 30 is the deadline when the US Commerce Department must announce a final determination of the first of two major anti-dumping suits against Japanese chipmakers. If the suit goes ahead, the US is expected to impose stiff duties on Japanese-made memory chips exported to the US.

US semiconductor industry executives met in Washington on Friday to consider alternative courses of action if a broad trade agreement is not achieved. Additional dumping suits against Japanese chipmakers are a strong possibility.

US Government officials who until recently were "very optimistic" that a negotiated settlement of the trade dispute could be reached, yesterday declined to comment on the outlook for the talks.

The apparent deterioration in the trade talks is understood to reflect increasing US and Japanese industry pressure for significant changes in working agreements reached by trade officials over the past 12 months.

US chipmakers have this week been seeking tougher enforcement clauses in the agreement, while the Japanese industry has apparently raised objections to aspects of the agreement relating to monitoring of export prices.

"We are concerned that recent actions by the Japanese Government and industry are not conducive to a settlement," said Mr George Scalise, chairman of the Semiconductor Industry Association public policy committee.

The Japanese negotiators have backed away from previously agreed terms in the working agreement, said Mr Scalise. Earlier this month, US and Japanese trade officials are understood to have tentatively agreed to set up a price and production cost monitoring system designed to prevent dumping and a scheme to increase US sales in Japan to a 20 per cent market share over the next five years.

Last week, three US chipmakers, Intel, Advanced Micro Devices and National Semiconductor, publicly accused Japanese semiconductor companies of dropping their US prices for Eproms (electrically programmable read only memories) commodity memory chips by about 22 per cent this month. The Japanese Eprom prices are approximately one third of estimated production cost, the US chipmakers charge.

Carla Rapoport adds from Tokyo: Officials at the Ministry for International Trade and Industry confirmed that talks on the dispute will continue this week.

If the wider talks on price monitoring of Japanese chips and market access for US companies in Japan are not settled by Wednesday, then the two US anti-dumping actions are expected to go ahead. It is understood that the Japanese were pushing for an extension of the suspension of the anti-dumping suits, which had been agreed earlier this month pending the completion of the wider talks. It appears that the US wants both issues resolved this week.

UK funds reluctant to invest in Eurotunnel venture

By Andrew Taylor in London

AN INTERNATIONAL share placing planned by the Channel Tunnel consortium to raise £200m ($300m) later this year seems likely to be snubbed by many of Britain's largest investment institutions.

Investment managers of 25 of the country's largest pension funds and insurance groups were asked in an informal poll held by the Financial Times: "On the basis of information currently available, would you be prepared to consider investing in the Channel Tunnel development?"

Only six funds said they were prepared to consider investing in the UK-French rail link this autumn. Ten said they would definitely not invest. Nine funds were undecided. Of these more than two-thirds thought it highly unlikely they would participate in the issue.

Two of the funds which said they might invest considered the project highly risky and were concerned that dividends would not be paid until the tunnel opened in 1993. They thought, however, it might be worth investing a small sum at this stage just "to get a foot in the door."

Many investment managers were worried they might have to wait even longer for a return on their investment if the tunnel did not prove an immediate success and faced stiff competition from ferry companies. They felt the returns being offered were too low for the risks involved.

Britain's share of the £200m placing is planned to be around £70m. The issue, which had been due to place last Thursday, was postponed three weeks ago when it was realised that detailed banking arrangements which needed to be included in the British prospectus would not be completed in time.

By comparison the French share of the placing, also around £70m, had virtually been concluded, according to the consortium, when the postponement was announced. A further £60m is to be raised in Japan, the US and other European countries.

Eurotunnel, the Anglo-French consortium which in January won the mandate to build a 30-mile rail tunnel under the Channel said last night that it was still confident of raising this money.

It said it had contacted 45 selected British institutions at the end of last year. Of these 30 had written to confirm they would be prepared in principle to participate in the forthcoming placing and also in a much larger equity issue planned

The cost of building the tunnel could rise to more than £6bn after inflation and interest charges had taken their toll.

Mexico seeks $11bn to close payments gap

BY DAVID GARDNER IN MEXICO CITY

THE MEXICAN Government estimates it will need $11bn in net new credit from now to the end of 1987 to close the balance of payments gap caused primarily by this year's collapse in the price of oil, its main export to keep up with payments on its $97bn foreign debt.

This estimate is contained in the Letter of Intent Mexico signed last week with the International Monetary Fund (IMF), agreeing in principle on a landmark, growth-oriented economic programme for the next 18 months, copies of which were released at the weekend.

The Letter of Intent quantifies the two innovative compensatory finance facilities in the agreement at a maximum of $3bn, and also gives notice that Mexico "would expect... a medium-term restructuring or refinancing" of a $950m principal payment already rolled over twice since October last year, shortly after the Mexico City earthquake.

The new oil compensatory finance facility will provide during the first half of the 18-month agreement $1 for each dollar lost from oil revenue below a average price per barrel of $9. In the second nine months, a greater burden would fall on domestic resources in absorbing the shortfall.

This additional credit would not exceed $2.5bn from all loan sources, and the currently envisaged level of financing would be reduced proportionately through the same mechanisms if the oil price rises above $14. The Government's finance estimates are based on an average oil price of $11 per barrel, according to Mr Gustavo Petricioli, the Finance Minister.

The second compensatory mechanism will release automatically $500m for "high yield" public investment if Mexico's growth rate – heading this year for minus 5 per cent of GDP – fails to recover to 3 per cent to 4 per cent of GDP by the end of the first quarter of next year.

Mr Petricioli said that Mexico would be looking to its commercial bank creditors to provide about half of the new finance.

The agreement envisages a higher tax take, equivalent to 1.3 per cent of GDP next year, and increased revenue equivalent to 1.2 per cent of national output.

As part of this bid to widen domestic sources of financing, Mr Petricioli announced late on Friday that the Government will this week issue new dollar-denominated Treasury promissory notes.

Brazil's unsettled outlook, Page 16

UK engineers offer to end job divisions

BY DAVID THOMAS IN LONDON

UNION LEADERS representing 1m of Britain's engineering workers have drawn up a draft agreement offering the end of demarcation in the engineering industry.

The unions are also prepared to grant engineering employers much greater control over the deployment of their workers.

The unions' concessions would sweep away the inflexibility of labour which has long characterised much of the UK engineering industry.

Acceptance of these points is contained in the draft of a new national agreement given by the Confederation of Shipbuilding and Engineering Unions to the Engineering Employers' Federation in a bid to persuade employers to reduce the 39-hour working week.

Both sides have been in long-running negotiations over the unions' claim for a shorter week and the employers' counter-claim for more flexible working practices.

The union's draft agreement says: "Where more than one union has members in an establishment, those unions and their members will co-operate with the employer in eliminating unnecessary job demarcations between members of different unions."

It adds that workers will "perform any task within the scope of their capabilities regardless of whether the task forms part of their normal work, and regardless of whether or not the task is traditionally performed by members of another union."

The unions also concede that "the employer shall determine the production hours necessary on a weekly, monthly, quarterly or annual basis."

The union document accepts the need to adjust hours around seasonal fluctuations in companies' demand and says that employers may

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OVERSEAS NEWS

Hassan resigns as Arab League summit chairman

BY TONY WALKER IN CAIRO

KING HASSAN of Morocco has resigned as chairman of the Arab League summit following criticism of his meeting last week with Mr Shimon Peres, Israel's Premier.

The Moroccan monarch was attacked by Arab hardliners, notably Syria which accused him of treason. King Hassan has been Arab League chairman since the organisation's last full-scale summit in Fez in 1982.

Although Arab reaction to his talks with Mr Peres has been relatively restrained compared with the furious outcry that greeted late Egyptian President Anwar Sadat's visit to Jerusalem in 1977, King Hassan has apparently decided that Arab unity would be better served if he stepped down.

In a letter to Chadli Klibi, secretary-general of the Arab League, King Hassan said he was relinquishing the job because of the "upheavals" in some Arab capitals following his meeting with Mr Peres.

The king handed over responsibility for organising the next Arab summit to Mr Klibi. The Moroccan ruler has been pressing for a full-scale summit meeting to deal with various issues dividing the Arab world.

He organised an extraordinary summit in Casablanca last year but it was boycotted by a number of hardline states including Syria.

Deep divisions in the Arab world have blocked a summit since 1982. A meeting of Arab heads of state is scheduled for later this year in Riyadh, Saudi Arabia, but there is little prospect of it being held.

Officials of the Arab League, which removed its headquarters from Cairo to Tunis in protest at Egypt's peace treaty with Israel in 1979, have been calling for an emergency summit to smooth over differences among member states.

Morocco has said in the wake of the Hassan-Peres meeting it would welcome an Arab League summit to be held on "neutral ground" in Tunis. The Palestine Liberation Organisation has called for an emergency summit to consider "the repercussions of the (Peres) visit . . . and the dangerous results it could have."

Meanwhile, in Damascus, King Hussein of Jordan has had several rounds of discussions with President Hafez al-Assad in his continuing attempts to bring about a reconciliation between Syria and Iraq.

Delhi acts to stem Punjab violence

By K. K. Sharma in Bombay

THE Indian Government and authorities in northern Indian states acted yesterday to thwart an attempt by Sikh terrorists to incite Hindus and Sikhs to take part in large-scale communal violence.

The terrorists are thought to be trying to provoke mass migration of the minority Hindu community from Punjab and of Sikhs from other parts of India to Punjab, where the religious community is in a majority.

This is said to be the aim of the killing of 15 Hindu passengers of a de luxe bus by Sikh terrorists last Friday.

In spite of elaborate security precautions, the first Hindu backlash against the recently escalated terrorism in Punjab came on Saturday when rioting and arson shook the suburbs of west Delhi.

Hindu mobs went on a rampage and clashed with Sikhs and scores of shops, buildings and vehicles were set on fire. Police opened fire several times and the army staged flag marches but five people were killed and nearly 100 injured before order was restored.

Tension in Delhi and neighbouring states remained high yesterday and security measures, which included a show of strength by the army in Delhi and Punjab, were strengthened. Many Punjab towns and parts of Delhi were under a round-the-clock curfew.

The recent communal violence between Sikhs and Hindus is directly linked to the feeling of insecurity among Hindus in terrorist-affected districts in Punjab from where hundreds of Hindu families have fled to Delhi and neighbouring states.

The weekend's violence in Delhi began soon after angry Hindu migrants initiated public mourning for those killed in Friday's outrage. They are said to have been provoked by militant Hindu organisations which have gained strength and support in the past few months.

Mass migration of Hindus from Punjab and of Sikhs outside to Punjab as a result of terrorist activity in the state and a Hindu backlash was the goal of the late extremist leader, Sant Jarnail Singh Bhindranwale.

He was slain in the army action on the Golden Temple in Amritsar in 1984 to oust Sikh extremists.

Gorbachev reproaches alcohol drive moaners

MR MIKHAIL GORBACHEV, the Soviet leader, revealed this weekend that his anti-alcohol campaign has cost his country at least Roubles 5bn (£4.67bn) in lost revenues since it began in June last year.

Chatting with citizens in a walkabout in the Far East port of Vladivostok, Mr Gorbachev reproached grumblers moaning at having to queue for hours for alcohol since the anti-alcohol campaign was launched.

Bush arrives in Israel for start of Middle East tour

BY ANDREW WHITLEY IN TEL AVIV

MR GEORGE BUSH, the US Vice-President, arrived in Israel yesterday at the start of a 10-day tour of the Middle East. From Israel Mr Bush is to travel on to Egypt, Jordan and possibly Morocco.

Additional significance has been given to a tour initially viewed largely in terms of Mr Bush's undeclared candidacy to succeed President Ronald Reagan in 1988 by last week's controversial summit in Morocco between Mr Shimon Peres, the Israeli Prime Minister, and King Hassan.

To maintain the fresh impetus given by the Moroccan summit to the previously moribund Middle East peace process, the US Vice-President is expected use his influence over the next week to try to bridge the remaining minor differences between Israel and Egypt over arbitration on the Taba border dispute.

Israeli officials hope this, in turn, will lead to another summit with an Arab leader—this time with President Hosni Mubarak—possibly as soon as next month. A team in Mr Peres's office is already laying the groundwork for such a meeting.

The Israeli Prime Minister's report on his meetings with King Hassan was given an unusually broad welcome at yesterday's regular Cabinet meeting of the coalition National Unity Government. Little criticism was believed to have been expressed by Likud hawks, normally highly suspicious of Mr Peres's foreign initiatives.

On the other hand, two prominent Labour ministers on the left of the party, Mr Ezer Weizman and Mr Mordechai Gur, spoke up publicly yesterday in support of Mr Peres's reported declaration to the Moroccan monarch that he was prepared to negotiate with "authentic Palestinian representatives."

Mr Weizman, a former Defence Minister now serving as a minister without portfolio, went as far as to say that he, for one, would be prepared to talk to Mr Yassir Arafat, provided the Palestine Liberation Organisation chairman renounced terror activities against Israel and recognised UN Resolutions 242 and 338.

The declaration on Palestinian representation in any peace negotiations formed part of a 10-point position paper said to have been presented to King Hassan in Ifrane, the Moroccan summer resort, by the Israeli Prime Minister.

AFRICAN AND LATIN AMERICAN COUNTRIES TO CO-ORDINATE PRODUCTION

Ivory Coast agrees to cocoa prices deal

BY WILLIAM DULLFORCE IN GENEVA

THE IVORY Coast, the world's largest cocoa producer, finally assented on Saturday to a new international price-stabilising agreement for cocoa, thereby ensuring that it will come into force on October 1.

The agreement was far from ideal, Mr Denis Bra Kanon, the Ivory Coast's agriculture minister, said but it was sufficiently dynamic for his country to add its weight and give it credibility.

He emphasised, however, that the Ivory Coast would expect to fill one of the two key posts, executive director or buffer stock manager, in the International Cocoa Organisation that will operate the agreement.

He also announced that African and Latin American producers would try to co-ordinate production and would seek co-operation with Asian producers. Malaysia, the fastest growing producer, has not taken part in the negotiations.

The agreement was far from ideal, the Ivory Coast said, but it was sufficiently dynamic for the country to add its weight and give it credibility

Mr Bra Kanon appeared to have wrecked hopes for a new accord, covering the $3bn a year cocoa trade, when he walked out of the UN cocoa conference in February.

The European Economic Community, the largest importing bloc, had made negotiation of the new agreement conditional on participation by the Ivory Coast, which produces about one-third of world cocoa and is not a member of the current agreement. The US, the biggest importing country, is not taking part.

By not aligning itself for once with "Uncle Sam" and by assuming its responsibilities in the latest talks, the EEC had shown that there was still hope for international commodity agreements in spite of the collapse of the tin accord, Mr Bra Kanon said on Saturday.

The new cocoa agreement, the final details of which were hammered out between producing and consuming countries at an all-night session on Friday, incorporates the more flexible price-adjustment mechanism sought by the consumers.

Mr Richard Thomas, the consumers' spokesman, described it as "a thoroughly workable agreement." It will be adopted at a plenary meeting of the UN cocoa conference on Wednesday or Thursday and will come into force after ratification by five cocoa producing countries accounting for at least 80 per cent of world exports and by countries taking at least 65 per cent of total imports.

A breakthrough came 10 days ago when the two sides agreed on a price adjusting mechanism centred on a reference price of 103 cents a pound. The buffer stock manager will be obliged to buy cocoa if the price falls to 85 cents and to sell if it reaches 121 cents. He can buy at 88 cents and sell at 118 cents at his own discretion.

Prices in the new agreement will, however, be expressed in Special Drawing Rights (SDRs) instead of dollars. The reference price has been translated to SDR 1,935 a tonne with intervention levels at SDR 1,600 and SDR 2,270.

Last week agreement was reached on an important second line of defence for the cocoa price. Producers will withhold cocoa from the market, if the indicator price falls below the lower intervention level for five consecutive days and the buffer stock at the same time is at 80 per cent of its capacity or has only enough cash left to buy 30,000 tonnes more cocoa.

The indicator price is the average of the daily prices on the London and New York exchanges over a period of 10 consecutive days.

The withholding scheme is limited to maximum of 120,000 tonnes with cocoa being withheld in tranches of 30,000 tonnes a time.

The buffer stock limit is 250,000 tonnes against its present level of 100.000 tonnes but it may be raised to 350,000 tonnes, if the new agreement is extended from three to five years.

South Africa issue divides OAU leaders

BY MARY ANNE FITZGERALD IN ADDIS ABABA

THE Organisation of African Unity heads of state summit opens in the Ethiopian capital of Addis Ababa today in a mood of militancy and frustration. Its 50 member states are angered by the reluctance of Western leaders, especially Mrs Thatcher and Mr Reagan, to impose sanctions against South Africa.

One resolution calls for African countries and non-aligned states to force Mrs Thatcher's hand through economic reprisals, sports boycotts and a severance of diplomatic ties. Another resolution to be considered by the leaders condemns Britain, the US, West Germany, France and Israel for their "economic and nuclear" collaboration with South Africa.

The overthrow of P. W. Botha's regime is dominating the conference but the means of achieving this are dividing delegates. This is because OAU member states must also address themselves to the question of whether it is white or black Africa that will come under siege if an embargo is imposed.

Even though the OAU has long opposed economic and political ties with South Africa, trade between the two parts of the continent amounts to more than $1bn a year. Sanctions would seriously destabilise the already embattled economy of Zambia, one of the strongest advocates of punitive measures.

Zimbabwe relies even more heavily on imports either coming from or passing through South Africa. Lesotho, which is totally surrounded by South Africa and Swaziland, which neighbours South Africa and is landlocked, have remained silent on sanctions.

The OAU will almost certainly fail to outline the type of sanctions it is seeking, as the EEC and Commonwealth have done. The blurred approach may make OAU states the victim of sanctions rather than South Africa.

Mr Botha: overthrow planned

Nigeria has proposed a ban on overflights and shipping movements to South Africa. If it is put in place, Kenya would be seriously affected. Nairobi airport refuels 38 weekly flights to and from Johannesburg, bringing in annual revenues estimated between $25m to $50m. Kenyan President Daniel Arap Moi will be absent at today's meeting.

Depleted OAU finances have robbed the organisation of putting any further pressure on South Africa.

With arrears subscriptions estimated at $35m, suggestions such as a pan-African rapid deployment force to counter cross-border attacks from Pretoria's armed forces were shelved before the summit opened.

Instead, the OAU is likely to opt for bolstering opposition towards Mr Botha's administration through undisclosed and voluntary contribituons of money and arms to the African National Congress.

Nigeria has disclosed it has already given $10m to guerrilla movements this year.

OBITUARY

Averell Harriman, shaper of US policy

THE millionaire banker and statesman, Mr Averell Harriman, who died in New York at the weekend, aged 94, had a diplomatic career that spanned four decades and was a key shaper of US policy towards the Soviet Union from World War II into the era of detente, Reuter reports.

Mr Harriman served in high-ranking posts in the Administrations of five out of seven US Presidents from Franklin Roosevelt to Jimmy Carter as well as serving one four-year term as governor of New York.

His first visit to the Soviet Union in 1922 included a discussion with the revolutionary leader Leon Trotsky. On his last visit there in 1983, he met Mr Yuri Andropov, the then Soviet leader, who urged better East-West relations.

The son of a railway tycoon, Mr Harriman was appointed by Franklyn Roosevelt in 1943 as ambassador to Moscow, where he sought to keep the often-tense wartime alliance on the best possible footing.

But as the war drew to a close and he became aware of Stalin's designs on eastern Europe, Mr Harriman became convinced that Washington's and Moscow's objectives were irreconcilable. He helped to convince the then President Harry Truman to take a tough stand against Soviet expansion.

Mr Harriman became an early advocate of detente and negotiated the 1963 limited nuclear test ban treaty

In later years, Mr Harriman was a special envoy for Presidents Lyndon Johnson and Jimmy Carter. From 1968 to 1969 he was the chief US negotiator in the Paris peace talks with North Vietnam.

Through the 1970s and 1980s he remained a leading advocate of arms control, urging in 1983 that both Washington and Moscow cut their nuclear arsenals by 50 per cent.

Mr Harriman is survived by his wife, Pamela, an influential Democratic Party fund-raiser who was born into an aristocratic British family. He also leaves two daughters, six grandchildren and six great-grandchildren.

Pretoria keeps curbs on blacks' movements

By Bernard Simon in Johannesburg

THE South African Government is to maintain tight controls over the movement of millions of black people, despite the abolition of pass laws earlier this month.

Opposition groups have reacted angrily to official indications that residents of four nominally independent tribal "homelands"—Transkei, Ciskei, Venda and Bophuthatswana—are now regarded as aliens in South Africa who may not move to "white" urban areas without proof of housing and work.

These homeland residents and their employers face substantial fines or imprisonment if they contravene the new rules, which are the same as those applicable to foreigners from abroad, The Government's interpretation of the citizenship and alien laws is expected to be challenged in court.

The new controversy stems from government promises earlier this year to restore South African citizenship to people forced to become citizens of the four homelands when they were granted independence by Pretoria.

According to a memorandum published by the Department of Home Affairs last week, the Restoration of South African citizenship Act passed earlier this year applies to only about 1.75m of 9m "citizens" of the four homelands.

● Part of an electrified security fence between South Africa and Mozambique will be switched on from August 1, a defence force spokesman said.

IMF flexibility pleases Egypt

BY TONY WALKER IN CAIRO

EGYPTIAN OFFICIALS are encouraged by the International Monetary Fund's apparent flexibility in its agreement to provide Mexico with some US$1.6bn over the next 18 months. The officials say the arrangement augurs well for Egypt's application for IMF assistance.

Egypt has approached the IMF for balance of payments support to help deal with its critical debt service position. It is in arrears to most of its creditors on its more than US$35bn foreign debt.

A senior Egyptian official said Egypt welcomed the IMF agreement with Mexico. The Mexicans agreed to institute long-term economic reforms in return for IMF support.

IMF measures for Mexico involve gradual reductions in the budget deficit in the next 18 months. Absent from the plan is the usual IMF bad medicine such as a big currency devaluation, deep budget cuts and tight credit policies.

Egypt is seeking a standby facility from the IMF totalling some US$1bn. The IMF has been pressing Egypt to reduce the burden of subsidy payments on the national budget and to institute reforms of its multi-tiered exchange rate system. Official rates for the Egyptian pound bear little relation to its true value.

● Egypt has announced that it is reducing the number of exchange rates for the Egyptian Pound. There will now be effectively two official rates of exchange.

These will be Egyptian Pounds 0.70 to the US dollar which is used for strategic imports such as wheat and a flexible rate now around E£1.35 which is applied to most other transactions such as the purchase of airline tickets.

The black market rate for the Egyptian Pound is about E£1.90 to the US dollar. Mr Sultan Abu Ali, Egypt's Economy Minister, said the official floating rate (of about E£1.35 to the dollar) would "become the rate used by the registered banks in Egypt for all payments and receipts."

Bonn stays firm on N-plant

BY PETER BRUCE IN BONN

AUSTRIA has failed to win any comfort from West Germany about Bonn's plans to build a controversial nuclear reprocessing plant 130km from the Austrian border near the tiny Bavarian town of Wackersdorf.

Mr Hans Dietrich Genscher, the West German Foreign Minister, met his Austrian counterpart, Mr Peter Jankowitz, for talks on the plant on Saturday in Saltzburg, where Mr Genscher was attending the annual Saltzburg festival. Vienna has asked both the Federal Government in Bonn and Bavarian State Government to think again about building the plant, drawing a furious response from the Bavarian leader, Mr Franz Josef Strauss.

However, Mr Genscher told Mr Jankowitz that Bonn had no intention of slowing its nuclear programme or of imposing a limited halt to construction at Wackersdorf in order to reflect further on the proposed plant, which will be the country's first. He was, in turn, assured that Vienna had not voiced its doubts about the project in order to embarrass Bonn. Austria was carrying out similar exchanges with other neighbours which produced nuclear power, Mr Jankowitz said.

Mr Strauss, who refused to attend the Salzburg Festival, is unlikely to be impressed by Mr Genscher's apparent commitment to Wackersdorf, however.

The Foreign Minister's own party, the Free Democrats (FDP), voted at a conference in Hanover in May to conduct a "review" of the Wackersdorf proposal and decided anyway that permanent storage of nuclear waste would be cheaper and safer than reprocessing.

FINANCIAL TIMES

Published by The Financial Times (Europe) Ltd., Frankfurt Branch, represented by E. Hugo, Frankfurt/Main, and, as members of the Board of Directors, F. Barlow, R.A.F. McClean, G.T.S. Damer, M.C. Gorman, D.E.P. Palmer, London. Printer: Frankfurter-Societäts-Druckerei-GmbH, Frankfurt/Main. Responsible editor: C.E.P. Smith, Frankfurt/Main. Guiollettstrasse 54, 6000 Frankfurt am Main 1. © The Financial Times Ltd. 1986.

FINANCIAL TIMES, USPS No. 190640, published daily except Sundays and holidays. U.S. subscription rates $365.00 per annum. Second class postage paid at New York, N.Y. and at additional mailing offices. POSTMASTER: send address changes to FINANCIAL TIMES, 14 East 60th Street, New York, N.Y. 10022.

French Riviera counts cost of forest fires

THE PARCHED ground was still hot and the smell of smoke and ashes filled the air yesterday along the Corniche between Nice and Monte-Carlo.

But the forest fires, which in 48 hours disfigured one of the most picturesque parts of the Riviera, killed one woman, devastated 7,000 hectares of pine, mimosa, Mediterranean oak and olive trees, and damaged scores of villas, were finally extinguished.

Repair workers were struggling to replace telephone posts and cables destroyed by fire. Around the medieval village of Eze, between Monaco and Nice, the landscape had taken on a lunar aspect.

Eze was perhaps worst hit by the blaze which started on the Riviera last Thursday. Mr Andre Gianton, mayor of Eze, said two-thirds of his commune had been scorched by the flames—"a tempest of fire," in the words of Col Claude Calatayud, head of the region's fire-fighting services—and that damage to property totalled at least FFr 40m (£3.3m).

More than 2,000 people had to be evacuated as 2,500 firemen and soldiers, some dispatched from Paris, fought the fire which at one stage threatened the outskirts of Nice and Monaco.

At Eze, the entire village had to be evacuated. "In all my years here, it's by far the worst fire I've seen, far worse than the fires of 1970 and 1978," Mr Claude Hirt, manager of the Chateau de la Chèvre d'Or, one of the most famous hotels on the Cote d'Azpr, said.

Mr Hirt did not think the blaze would affect the local tourist business. If anything, it will probably boost it. "The blaze has become a new tourist attraction. But the landscape is likely to remain scarred for many years."

The landscape has taken on a lunar aspect, with increasing risk of subsidence, Paul Betts reports

If the fires of the past few days on the Riviera have been particularly devastating they are sadly a regular summer occurrence.

Forest fires have become an annual ecological tragedy for the country, but this year, with already more than 19,000 hectares destroyed in the south and Corsica, could beat the record of 1979.

An Agriculture Department official warned that France's Mediterranean forest was at serious risk of eventual extinction. "It will take at least 70 years to see the trees grow to a good height again," he said.

There is also increasing risk of subsidence, especially in the more rugged areas such as the region around Eze.

The French authorities have been coming under increasing public criticism for failing to check the fires which keep recurring with a vengeance every summer

Mr Jacques Chirac, the right-wing prime minister, pledged on Saturday that the Government would introduce measures to help increase the proctection of French forests, and combat fires. Mr Charles Pasqua, Interior Minister, also announced an imminent reorganisation of civilian security services.

But the problem is that many of the forest fires are due not only to carelessness but to arson.

WORLD TRADE NEWS

Pressure on Algeria over natural gas price

By Francis Ghilès and James Ball

SONATRACH, the Algerian state oil and gas corporation, is under intensifying pressure to change the way in which it calculates the price of natural gas in the face of the continuing fall in the price of crude oil.

The organisation is facing a sharp decline in foreign income earned from natural gas sales last year because of the fall in world energy prices. Total energy sales abroad last year were worth $12.6bn (£8.2bn) approximately a quarter of which were in natural gas.

A clear signal as to how Sonatrach will respond to these pressures will emerge when Algerian energy officials and Gaz de France, the company's second biggest overseas customer, begin yet another round of talks at the end of the summer.

The organisation is also facing pressure from other European clients who wish to change the basis on which the price of Algerian gas is calculated.

They would like to give up the list of eight market crudes which has been used in recent years and directly ling the price of the gas to competing energy sources, such as fuel oil, gas oil and electricity.

By July 1, the average fob price of Algerian gas sold to European gas utilities stood at $2.36 per million British thermal units (BTUs).

The Algerian price is falling faster than that of gas from the Netherlands, the Soviet Union and Norway, among others. because Sonatrach has insisted in its current contracts on a short reference period—three months compared with seven-to-nine months for the Netherlands, and six for Norway—and a three-month review period for the eight market crudes from which the price of its gas is calculated.

Meanwhile, Sonatrach and the Belgian Distrigaz company, which have been locked in difficult negotiations since last year, have agreed to suspend, at least until April 1987, the arbitration proceedings on price and volumes instigated by the Belgians last April 1. Talks on new terms will resume later this summer.

In its interim agreement with Distrigaz, Sonatrach has suggested the Belgians pay a price based on the interim one agreed Sonatrach and Gaz de France last April 1

Carla Rapoport reports on a trade dispute that has become a marathon in duration and bitterness

Japan's drink taxes make spirits sink in Brussels

AS TRADE disputes go, Europe's quarrel with Japan over taxes on imported spirits has become a marathon in terms of duration and bitterness.

After another fruitless round of talks in mid-July, EEC officials prompted the Council of Ministers to call for a complaint to be filed against Japan with the General Agreement on Tariffs and Trade (Gatt) if the issue is not settled by October.

This action underlines the sense of hopelessness most European traders feel about changing the punishing tax system which Japan imposes on imported spirits and wines.

But, unlike most trade disputes, this time Europe has some powerful support behind enemy lines—namely Japan's own liquor industry.

In a recent submission to the government, the Japan Spirits and Liquor Makers Association complained: "As we have explained several times in the past, consumers seem to have lost a sense of appropriate prices for spirits and liquors after successive tax hikes."

It called for an immediate reduction in taxes on spirits, as well as a complete revision of the current drinks tax system in Japan.

The current, graded tax system for spirits discriminates against any quality product, be it imported or domestic. The Europeans argue that Japanese premium whisky does not deserve the name.

Further, the Japanese industry says that taxes are only part of the industry's problem. In the case of whisky, for example, executives point out that the industry remains in a slump.

"The whisky industry in Japan has problems — it is not scotch versus domestic brands; it is a total industry problem. People are drinking less. I don't think we should fight, but co-operate," said a senior Japanese industry executive recently.

Sales decline

Whisky sales in Japan have declined by nearly a third between 1983 and 1985, while the market for spirits as a whole was fairly stagnant. Special grade whisky sales, both imported and domestic, dropped by 36 per cent in the period.

While the spirits and liquor makers blamed the harsh taxes on whisky as the main source of the problem, industry executives also blame the drop on the industry's somewhat complacent approach to marketing.

"In the case of scotch, most importers expect the top whiskies to sell themselves. A high price guarantees high prestige, so it is mostly marketing on price," explained a domestic industry executive. "They (the importers) have never implemented real marketing to the consumers."

The importers say that broad-based consumer advertising does not suit a high value, low-volume product such as premium whisky. If the punishing taxes, which are more than 20 times those imposed on the cheapest spirits, are reduced, then the imports would do better.

None the less Dentsu, Japan's leading advertising company, estimates that the domestic industry spent Y70bn (£223.6m) in advertising spirits and wines last year, while the importers spent just over Y2bn. Suntory, Japan's leading whisky maker, is one of Japan's largest advertisers.

Indeed, for Suntory, saturation of prime time television advertising is now no longer sufficient. In Shinjuku, one of Tokyo's night club areas, Suntory has set up Suntory shot bars, which are Western-style standing bars where customers can down a shot of whisky on their way home from work.

Suntory also has started a chain of Suntory bars, where customers can order whisky with food, and opened the Newport Jazz Bar in central Tokyo where patrons can sip bourbon and whisky while listening to jazz.

Still, taxation remains a major vexation for those both within and outside Japan. The Ministry of Finance refuses to give any quarter. Taxes and tax reform, officials say, are domestic issues not to be influenced by outside forces.

Officials say: "This isn't England, where you have a budget day and announce taxes just like that. Our system is changed by the slower process of review and consultation."

Tax review

Finance Ministry officials point out that Japan is now undertaking a grand-scale tax review, the first since the 1950s. The Tax Commission, which is carrying out the study, reports directly to the Prime Minister and is expected to complete its work by October or November.

"We understand the EEC complaint, but it can't be solved until the tax review is finished. We don't have a value-added tax system and we have a huge budget deficit.

"Liquor taxes are a very significant part of our revenues, but this is a domestic problem and when outsiders complain that creates an issue of sovereignty."

Meanwhile, the price of, say, Johnnie Walker Red Label in Japan is about Y4,000. Despite the appreciation of the yen, the prices of imported spirits have not been reduced.

As one importer explains: "We could value the product at zero and it would still attract so much tax that it would be much more expensive than locally produced whiskies."

Popular whiskies in Japan are weaker than scotch and are routinely mixed with a lot of water by customers. As their ingredients are poorer than those used to make scotch, these popular Japanese whiskies attract much less tax and generally sell for less than Y3,000 (£9.50) a bottle.

Parallel importers, who are not official brand name distributors, are starting to gain ground.

Some industry executives estimate that as much as one-third of scotch whisky sold in Japan is now sold by parallel importers. "These are not happy times for the whisky industry, Japanese or foreign," concludes an industry executive.

JAPANESE LIQUOR MARKET
(Imported and domestically produced)

(Kilolitres—rounded up figures)

Drink	1983	1984	1985
Sake	1,481,549	1,348,667	1,340,925
Shouchu*	390,077	544,732	631,514
Beer	4,962,985	4,688,190	4,794,361
Fruit liquor	94,255	90,985	91,124
Whisky	381,135	305,230	267,362
Brandy	24,027	22,772	25,897
Liqueurs	28,405	89,768	94,781
Other spirits	12,548	40,710	36,324
Others	100,844	104,568	114,903
Total	7,475,829	7,235,649	7,397,181

* Inexpensive, distilled rice wine.

Source: Suntory

Lisbon given edge over Spain in goods row

By Diana Smith in Lisbon

BRUSSELS has given Portugal the edge against Spain in a dispute between the two countries over the percentage of nationally-made content that must be carried by Portuguese goods entering Spain free of Customs duty.

Earlier this year, in response to Spanish concern that Portugal would become a sort of packing department for third-country or EEC goods finished cheaply with Portugal's low labour costs, the EEC Commission issued a regulation demanding 60 to 78 per cent national content of goods that Spain would allow in duty-free from Portugal.

Portugal protested and made a counter-claim for national content of 25 to 30 per cent which the Spaniards found totally unacceptable.

The Council of Ministers in Brussels has now voted for a 30 to 35 per cent Portuguese national content rule-of-origin requirement to come into force on October 1 this year and last until 1989.

This means that now not only EEC electrical or electronic goods cheaply finished or packed in Portugal could pour on to Spanish markets, but so can South Korean TV sets, assembled in Portugal.

West Germany, Portugal sign frigates pact

WEST GERMANY and Portugal have signed an agreement for a DM 1.9bn (£487m) project to build three frigates at West German shipyards for Portugal's navy, officials said, Reuter reports.

Seven other North Atlantic Treaty Organisation nations will help equip the three Meko-200 anti-submarine frigates which will be built by the West German Meko consortium at the Blohm und Voss and Howaldtwerke Deutsche Werft shipyards.

West Germany is to contribute about DM 500m of the total cost of the frigates under the accord signed by the Portuguese and West German Governments and the consortium of which the shipyards form part.

Portugal is to contribute a similar amount to the project, to be paid over five years. As a trade counterpart to this, West Germany agreed to purchase Portuguese products.

About DM 600m is to come from the US and the rest from other Nato nations.

French tourist earnings fall

FRENCH tourist earnings have fallen sharply this year due mainly to fewer US visitors, who are staying away because of the weaker dollar and fear of terorrism, Mr Alain Juppe, the government spokesman said yesterday, Reuter reports.

Figures presented to the Cabinet showed that the net surplus on tourism would be between FFr 19bn (£1.5bn) and FFr 25bn this year, down from the record 1985 surplus of FFr 31.5bn.

US, Taiwan to hold machine-tool talks

The US and Taiwan will begin negotiations in Washington in early August on a bilateral agreement to restrict Taiwan's exports of machine tools to the US for a five-year period, US trade-policy officials said, AP-DJ reports.

The US is expected to start similar bilateral negotiations with Japan in Tokyo in mid-August.

SHIPPING REPORT

Demand for oil tankers likely to grow by 28%

FINANCIAL TIMES REPORTER

DEMAND for oil tankers is expected to grow by 28 per cent over the next five years if forecasts of increased output from members of the Organisation of Petroleum Exporting Countries and rising demand from importers are realised.

Operators of the biggest vessels — ULCCs and VLCCs — are expected to benefit and spot rates should rise substantially, according to the latest monthly report from Drewry Shipping Consultants.

There could even be shortages of ships between 25,000 and 90,000 dwt because of increased trade in oil products, it claims.

The report says lower bunker prices have already reduced voyage costs for tankers and bulk carriers by up to 55 per cent.

The recent surge in output and demand have pushed freight rates up, and Drewry calculates that at current spot rates, a very large crude carrier running between the Gulf and northern Europe will make a profit of $800,000 (£522,875) after voyage and operating costs.

The increase in oil trades, however, will affect movements of steam coal which could prompt a short-term decline in dry bulk movements.

Galbraith's, the shipping broker, reported a slight revival in VLCC owners' fortunes last week, and estimated a 250,000-tonner sailing from Sirri Island to north-west Europe should be able to claim Worldscale 32.5.

It was also heartened by reports of large tankers being chartered, possibly for use as floating oil stores. In the past, Galbraith's said, such ships had been taken out of transport use for 12 months and more.

The firm is also watching the tanker market closely as rumours circulate that Middle Eastern countries are seeking to buy several large vessels.

Reporting on the dry cargo market, Denholm Coates said rates were still edging downwards. However, it reported with some relief that the world total of deadweight tonnage had fallen for the third month running, indicating that the flood of new ships was beginning to ebb as scrappings outpaced new vessel deliveries.

"There is a long way to go, but at least the direction is right," the broker said.

World Economic Indicators

FOREIGN EXCHANGE RESERVES

(US$m)

	May 86	Apr. 86	Mar. 86	May 85
US	14,320	15,062	13,965	7,158
W. Germany	37,726	39,930	39,865	33,781
UK	11,172	11,361	10,733	7,468
Japan	28,197	26,686	23,540	23,191
Italy	17,336	15,662	13,370	17,611
Belgium	5,222	4,216	3,981	4,138
Netherlands	9,156	9,550	9,284	7,522
	Mar. 86	Feb. 86	Jan. 86	Mar. 85
France	24,135	24,190	23,836	19,602

Source: IMF

BT cuts cost of satellite services

By David Thomas

BRITISH TELECOM (BT) is to cut the prices of some of its international digital satellite services. It is also establishing a long-lease satellite service with discounts on existing prices.

The price cuts are on BT's Sat-Stream high-speed digital circuit for voice, video-conferencing and data communications, as well as on BT's parallel KiloStream service.

Price cuts range from 8 to 13 per cent and are being offered on SatStream's high capacity circuits. They are intended to persuade customers to increase the amount of data which they send by satellite. BT thinks that its high capacity circuits may have been over-priced relative to its low capacity satellite circuits.

At present, customers lease circuits for short periods of variable length. BT is now introducing three to five-year leases on which there will be discounts of 5 per cent and 10 per cent.

BT's satellite service began with a link to Canada in 1984. Links were extended to the US and Europe last year. Mr Mike Ford, chief executive of the business division at BT International, said that demand for SatStream was growing "very satisfactorily" with almost 50 large companies now using it.

● BT has been accused by the National Communications Union of treating its shareholders more favourably than its staff. Replying to a pay offer in which BT insists on changes in working practices, the union says the company seemed determined "to treat its shareholders in an infinitely more favourable way than it is prepared to deal with its own staff."

Government will press on with plan for poll tax

BY RICHARD EVANS

THE GOVERNMENT is determined to press ahead with the fundamental reform of the rates (local property tax) system despite vocal opposition from those likely to be worst hit, including local authorities and industry in south-east England.

The reforms, based on a uniform business rate and the replacement of domestic rates by a community charge or poll tax, will form a key element in the Conservative Party manifesto for the next general election.

But as an indication of the priority the proposals would have if the Government retained power, ministers are considering publishing a bill before the election, rather than a White Paper (Policy document).

"Nothing has happened that makes us doubt that the basic structure of our proposals is right," Mr William Waldegrave, the Environment Minister responsible for local government, said.

"We are gathering confidence that this is the right thing to do in policy terms," he said.

The news will come as a blow to many local authorities in the south-east, including Westminster City Council, which has been conducting a campaign against the uniform business rate. They fear it would increase rates in their areas by at least 15 to 20 per cent and drive business away.

Until Mr Waldegrave's comments, which have the firm support of Mr Nicholas Ridley, Environment Secretary, there had been continuing doubts over the Government's commitment because of the adverse impact the proposals would have on a wide range of business and domestic ratepayers. Any alternative to the rates is bound to be a political gamble as it involves losers as well as gainers.

Ministers have found a substantial degree of support for the reforms within the Conservative Party, however, and a majority of resolutions submitted for debate at the Tory Party conference in October have been in favour.

Mrs Thatcher told the 1922 Committee of Conservative backbenchers last week that she was determined to push ahead with the reforms, which would be introduced from 1990 in England and Wales.

Scotland is on an advanced timetable and a bill will be in the Queen's Speech in November for the introduction of the changes there from 1988-89.

Consultations on the proposals, which were outlined in a Government Green Paper (discussion document) published last January, continue until the end of October. A decision will then be made on when to publish a White Paper or a bill.

The key proposals are to replace domestic rates over a 10-year period from 1990 with a poll tax on all adults, and to replace the non-domestic rate by a national business rate levied on all commercial and industrial property. The proceeds would be pooled centrally and redistributed to all local authorities.

A uniform business rate would involve a strong redistributive element, shifting the burden of non-domestic rates from highly rated authorities.

BRITAIN SUPPORTS LESS RESEARCH THAN TRADING RIVALS

Call to boost scientific spending

BY DAVID FISHLOCK, SCIENCE EDITOR

BRITAIN is spending less on scientific research per head of population than the US, Japan, West Germany, France or the Netherlands.

Its spending on research is also lower than any of its European trading rivals as a percentage of gross domestic product.

These facts emerge from the latest report of the UK Government's scientific advisers, who brief Mr Kenneth Baker, Secretary for Education and Science, on the national science budget.

The present planning figure for the 1987-88 science budget is £628m.

The Advisory Board for the Research Councils, under the chairmanship of Prof Sir David Phillips, the Oxford biophysicist, recommends an increase of at least £35m (5 per cent) in the science budget for 1987-88, rising to £50m more (8 per cent) in the following year, and £80m (10 per cent) in 1989/90.

It believes these additions would restore the real value of the science budget to its 1980 level.

The advisory board also wants compensation for exchange rate changes on national subscriptions to international research programmes, which will erode an estimated £9m from the 1987-88 budget.

Sir David, in a letter accompanying his latest report, says the morale of the British scientific community has never been lower.

According to his report, the national needs which the science base exists to meet have become more pressing in recent years, and the pressures are still growing.

Industry's expectations of the science base have increased and are continuing to increase. Throughout the developed world, the industries which helped to foster the postwar economic boom – cars, electronics, consumer goods, semiconductors, aerospace, pharmaceuticals and petrochemicals – are now mature industries.

New science based core technologies are now being developed, which offer the promise of revitalising old industries and launching new ones.

Concern about the already weak and arguably deteriorating competitive position of British industry increases the pressure on the science base, the advisory board says.

It finds considerable evidence that British industry is recognising the increasing importance of closer interaction with the science base, and says there are examples of industry "recruiting leading academic scientists, in some cases complete with their entire research teams."

The volume of research commissioned by industry from the science base has also grown. But there is foreign competition from major economic competitors who have increased their public spending on science – "in some cases very significantly."

The brain drain of scientists from Britain provides evidence of the failure of its investment to keep up with that of its competitors, the board says.

● The Government has authorised 33 British universities and university colleges to exploit inventions arising from work funded by the research councils. Most other universities are still discussing their schemes with the scrutiny group, set up to vet ideas for exploitation independently of the British Technology Group.

Science and Public Expenditure 1986: report from the Advisory Board for the Research Councils. Available free from the Department of Education and Science, Room 5/61, Elizabeth House, York Road, London SE1.

FT refuses to sell 50% stake in Economist

By Martin Dickson

MR EVELYN de Rothschild, chairman of the Economist publishing company, and senior members of its staff are understood to have approached the Pearson group recently and proposed that it sell its 50 per cent stake in the Economist.

However, Pearson – which owns the Financial Times and holds its Economist stake through the FT – is understood to have rejected the idea, viewing the shareholding as a sound, long-term investment.

The approach preceded a clash last week between Pearson and the Economist's management, led by Mr de Rothschild, over an increase in the company's borrowing limits.

Mr de Rothschild is thought to have argued that increasing competition between the FT and the Economist was leading to conflicts of interest and that Pearson's stake should be sold to other interested parties, including senior Economist executives.

Mr de Rothschild was not available for comment yesterday but he was quoted at the weekend as saying that the Economist had expanded into areas of competition with the FT and "Pearson may not want us to grow at such a speed, or into areas which compete with the FT and its publishing interests."

Pearson is understood to reject the conflict of interest claims and to suspect that the manoeuvre might have been an attempt to buy it out cheaply.

Last week a resolution to increase the Economist's borrowing from £1.2m to £30m was blocked at an extraordinary general meeting of shareholders when Pearson voted against.

Lord Blakenham, chairman of Pearson, said the FT did not believe that the Economist's ability to grow in the interests of all shareholders required such an immediate increase, although it would readily approve a smaller one.

Motor industry trade balance slumps to near £1bn deficit

BY KENNETH GOODING, MOTOR INDUSTRY CORRESPONDENT

THE SERIOUS deterioration in the UK's balance of trade in motor industry products continued in the first quarter of this year when the deficit reached nearly £1bn.

The adverse balance worsened by £260.1m, or 36.2 per cent compared with the first three months of 1985, to £978.7m.

All sectors of the industry put up weaker performances than in the corresponding period of 1985 but the Society of Motor Manufacturers and Traders (SMMT) said currency exchange rate changes were mainly to blame by making import prices higher and export receipts lower.

The society pointed out that exports to the US, largely invoiced in dollars, suffered from a sterling exchange rate which moved from $1.11 in the first quarter of 1985 to $1.43 in the early part of this year.

"As both imports and exports adjust to the realignment of the pound against other currencies, it is to be hoped the balance of trade will improve," the society said.

The statistics, compiled by the society from Customs and Excise figures which have been delayed this year, show that the UK's trade in commercial vehicles, which went into the red for the first time only in 1983, seems destined to go ever deeper into deficit.

The adverse balance on commercial vehicles in the first quarter was 53 per cent worse than that for the same period last year.

Trade in parts, accessories and other motor products, including agricultural tractors, also suffered and worsened by 46.6 per cent compared with the 1985 first quarter.

The deficit for cars, already the most substantial burden on the trade performance, was 20 per cent worse in the quarter.

The number of cars imported to the UK in the first quarter rose by 1 per cent on the same period of 1985 from 281,743 to 284,256, while car exports fell by 8 per cent from 62,400 to 57,366.

Although built-up car exports by both Austin Rover, the Rover Group (formerly BL) subsidiary, and Jaguar improved, shipments of kits by Peugeot-Talbot UK to Iran – where they are assembled into the Peykan, that country's best-selling car – were substantially down.

Peugeot-Talbot pointed out at the weekend that so far this year only 7,800 kits have been exported to Iran against the 47,000 for the whole of 1985.

UK MOTOR TRADE
£ (fob) first quarter

	1986	1985
EXPORTS		
Cars	285.9	333.4
Commercial vehicles	95.8	102.6
Other motor products	858.1	857.7
IMPORTS		
Cars	1,206.5	1,098.8
Commercial vehicles	225.2	187.0
Other motor products	788.8	724.1
TRADE BALANCE		
Cars	-920.6	-765.4
Commercial vehicles	-129.4	-84.4
Other motor products	71.3	133.6
Total	-978.7	-716.6

Source: Society of Motor Manufacturers and Traders from Customs and Excise statistics.

Business training for jobless

BY ALAN PIKE, INDUSTRIAL CORRESPONDENT

GOVERNMENT support for a new programme designed to capture the entrepreneurial potential of young people in deprived inner city areas will be announced by Mr Kenneth Clarke, Paymaster General, today.

The programme, entitled Head Start, will be run in collaboration with the Industrial Society. In its first year it will offer enterprise training to 3,000 young people in the Government's inner city task force areas.

Head Start is intended to give practical advice and business training to unemployed 18-25-year-olds who display the potential to start their own businesses. Industrialists and chambers of commerce in the task force areas will be urged by the Government to support the project.

Mr Clarke, the Employment Minister responsible for the Government's inner cities initiative, will announce details of the plan in a speech to business leaders in the north-east city of Middlesbrough – itself one of the eight task force areas which the Government designated earlier this year.

The other areas are North Kensington and North Peckham in London: Chapeltown, Leeds; Highfields, Leicester; Moss Side, Manchester; St Paul's, Bristol; and Handsworth, Birmingham. Head Start will run in all except Manchester and Birmingham.

Mr Clarke will also tell his audience that the Government intends to relax the restrictions on profit-making for private sector companies which provide places on the Community Programme for the long-term unemployed.

Almost all current Community Programme sponsors are local authorities, charities or churches. The Government and Confederation of British Industry have been examining ways of increasing private sector involvement, including possible changes in the rules which have prevented sponsors from profiting from schemes.

The Government has decided to tell the Manpower Services Commission to revise its Community Programme guidance to allow private sector organisations to make some private gain from schemes, provided there is wider community benefit and useful work experience for long-term unemployed people.

This decision will be accompanied by the allocation of an additional 1,400 Community Programme places in the eight task force areas.

Indefinite delay forecast for Sizewell B nuclear station

BY MAURICE SAMUELSON

THE SIZEWELL B nuclear power station on the east coast of England is unlikely to be built and there is also no early prospect of new orders for coal-fired stations, says a gloomy report on the outlook for Britain's power plant suppliers.

The study, by Laing and Cruickshank, the London stockbrokers, gives a warning that UK generating equipment makers "will progressively run out of work over the next few years, and there is little prospect of recovery for several years at least after that."

Mr Nick Cunningham, its author, echoes the gloomy conclusions of a recent report to the National Economic Development Council forecasting further contraction of the industry and the risk that when orders do revive equipment will have to be imported because of lack of UK capacity to supply it.

Sizewell, writes Mr Cunningham, will not only be deferred until after the next general election but is unlikely to receive approval even after the election.

Despite reports that the Central Electricity Generating Board is considering two new large coal-fired stations in southern England, he believes that no such alternative to Sizewell would be built for at least five years.

The "most likely outcome" is a continuation or stepping up of the refurbishment programme for existing coal plant, as is happening in the US. But this would fail to provide enough work to maintain the UK manufacturers at their current size.

Further refurbishment of existing coal-fired stations would also, in Mr Cunningham's view, be very attractive for the Government because of the current low cost of fossil fuel. However, this would not be a satisfactory replacement for new power station work because it would not load the manufacturers' capacity.

The Sizewell proposals for a US-style pressurised water reactor led to Britain's longest-running public inquiry. When it ended in April last year it had been running for 27 months. The inquiry inspector's report has still to be published.

● In the face of severe criticism by MPs, Britain's nuclear industry has promised to try to overcome public unease by adopting "Rolls-Royce" solutions to the disposal of low-level nuclear waste.

The industry sees this as the only way to create a public mood which will enable it to approach the subject of disposal of long-lived nuclear waste.

The statement came in the industry's final response to House of Commons' environment committee, which last March described Britain's management of nuclear waste as amateurish and haphazard, and demanded strict new controls on radiation discharges.

The MPs' report said discharges from the Sellafield reprocessing plant in Cumbria, north-west England, has turned the Irish Sea into the most radioactive stretch of water in the world.

Response to this report yesterday came on behalf of the electricity generating boards in England and Scotland, British Nuclear Fuels (which operates Sellafield), the UK Atomic Energy Authority and the Nuclear Industry Radioactive Waste Executive (Nirex).

This response, which followed interim comments on aspects of the select committee's report, made clear that the industry wished to continue disposing of low-level waste as soon as possible rather than continuing to store it.

Tory chief hints at reform of benefits for jobless

THE POSSIBILITY of differential rates of unemployment benefit being paid in various parts of the country was raised last night by Mr Norman Tebbit, the Conservative Party Chairman, John Hunt writes.

He suggested that it might be feasible to pay lower rates in the most prosperous areas where jobs were more readily available and higher rates in the areas worst hit by unemployment.

It was emphasised that Mr Tebbit was speaking spontaneously in response to a question during an audience participation session on Yorkshire Television.

Nevertheless, it is clear that has given some thought to the matter and it could be one of the subjects discussed in the Tory party policy groups which later this year will start drawing up a programme for the party's next general election manifesto.

Mr Tebbit told television viewers: "Perhaps we should be a little tougher on the benefits in those areas where there are jobs so that we can be a little more generous in areas where there is high unemployment."

"Some people find life on the safety net a little too comfortable. They don't attempt to climb the ladder. But these days it is not unusual for people to take jobs and leave themselves worse off than they would have been on benefit."

Mr Michael Meacher, Labour's social services spokesman, said last night: "How can Mr Tebbit seriously pretend that unemployment benefit is a disincentive to return to work when the number of unemployed is over 10 times the number of vacancies at any time? His vendetta against the unemployed is simply a blind to distract attention away from the real cause of rising mass unemployment – the Government's own restrictive monetarist policies."

☐ PROPOSALS from the European Commission on legislation to be delegated from Westminster to Brussels contains too few checks, according to a House of Lords report. The Lords select committee on the European communities welcomes the principle of more delegation, which it believes will make the EEC more efficient and speed up progress towards a real common market. But it fears that vital national and individual interests and the principle of democratic accountability could be at risk.

☐ TALKS on teachers' pay remained deadlocked after almost three days of discussions between employers and unions. The two sides were "a long way apart" on proposed salary levels, although broad understanding has been reached on some aspects of teachers' future contractual duties, said a local authority spokesman.

☐ JOINT TUC-Labour Party proposals on changes in employment law – which would require unions to hold secret ballots – will come under fire at the TUC Congress in September, according to the preliminary agenda.

☐ EMBARRASSED by disclosures during the Brinks-Mat gold robbery trial last week, the Government is already studying ways in which banks can be encouraged to tip-off authorities about suspicious movement of funds. It was disclosed during the trial that a gang passed many millions of pounds of bullion through a bank in Bristol with apparent indifference to any risk of exposure.

☐ NATIONAL Seed Development Organisation, which derives most of its income from producing and marketing seed varieties, is to be privatised along with the research function of the Plant Breeding Institute.

The Department of Education and Science intends to sell the two bodies together to a private buyer – either to a commercial company or to their own staff, who are trying to mount a management buy-out. Ministers have ruled out a share flotation.

☐ THE LIBERAL/SDP Alliance launched a campaign to present a united front at the next general election and to rebut Labour and Conservative allegations of differences between the two parties.

Pay rising at 'three-times inflation rate'

By Helen Hague

BASIC PAY levels of clerical and manual workers are increasing by nearly three times the rate of inflation, according to a survey published today.

The latest six monthly national survey carried out by Regional Reward Surveys shows that annual increases for clerical staff were 7.6 per cent and those for manual workers, 6.9 per cent.

It argues that with the latest Retail Price Index at 2.5 per cent clerical and "operative" staff in full time employment are much better off in real terms than they have been for many years.

According to the survey, which covered 275,000 employees in 644 companies, the increase in pay for qualified operative staff in all industries is a reflection of skill shortage developing in many areas.

The companies surveyed included many small and medium-sized operations, often with no formal union bargaining agreement. The report concludes that this underscores the trend that managements are offering increases on a "need to pay" rather than a "union demand" basis.

The survey shows that the average basic pay for all grades of private sector office staff is £5,921 (£114 a week), and for operative staff £6,202 (£119 a week). Pay in the London area is 35 per cent above the national average for clerical staff and 11 per cent above for manual workers.

Other regional variants show that the traditionally lower paid Yorkshire and north east Midlands areas are showing a movement up the relative pay scale, whereas Staffordshire (West Midlands) and north-west of England are showing falls.

David Lascelles explains why the City's club money system must end

Bank changes the liquidity rules

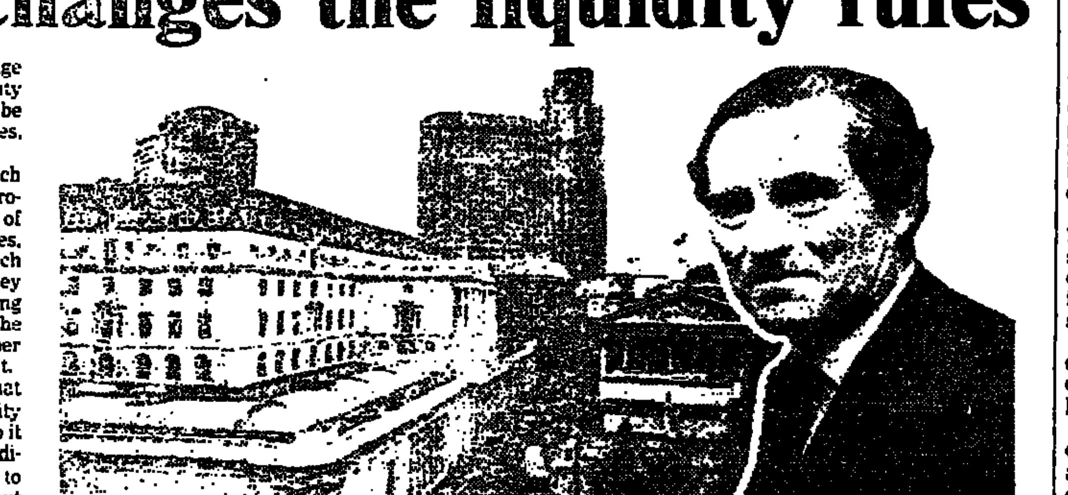
AMONG THE victims of change caused by deregulation in the City of London – the Big Bang – will be one of the City's quainter practices, so called club money.

This is the system under which UK banks have to maintain a proportion of their assets in the form of deposits with the discount houses, the banking institutions which make markets in short-term money instruments and link the banking system to the Bank of England. The proportion is a minimum of 2¼ per cent, and an average of 5 per cent.

This arrangement ensured that there was always enough liquidity in the UK banking system to keep it operating smoothly, and that individual banks had quick access to funds if they needed them. Without good liquidity, there is a danger that an otherwise solvent bank can get into trouble and trigger a major banking crisis because its assets are not readily realisable to meet a sudden demand for cash.

But as part of its plan to bring more openness to UK banking, the Bank of England decided 18 months ago that club money would have to go before the Big Bang on October 27. In its place it has now proposed new arrangements to preserve liquidity, and these were contained in a paper released for debate last week.

The immediate reaction of most bankers is that the proposals are sensible and will be no more onerous than the self-imposed liquidity rules which all banks have. "Generally, they are in line with our current practice, and I would guess that the amounts of liquidity being demanded will be well within what we already observe," said Mr Robert Close, assistant treasurer of Barclays Bank.



Sir Robin Leigh-Pemberton, Governor of the Bank of England

Even so the paper is being closely scrutinised because of the importance of good liquidity management, and its impact on bank costs.

The paper defines the assets that banks must have for liquidity purposes (cash, bank bills etc) and proposes various formulae for working out how much banks should hold. It also proposes that the 11 major commercial banks be the main holders of liquidity, with other banks either holding their own directly, or indirectly in the form of deposits with a clearer.

The same formula will be applied to all banks regardless of their size or balance sheet structure, largely because the maintenance of a liquid banking system is considered to be a cost which all banks must share. Even so, individual banks will have to discuss their liquidity management with the Bank.

One concern among bankers is that the creation of a two-tier system of clearing and other banks could cause complications in the market. When non-clearing banks offer deposits to clearers, they will have to state whether these are for liquidity purposes or not. If they are, they are likely to be quoted a lower rate because the clearing bank will, under the Bank's proposed rules, have to match these deposits with liquid assets of its own on a one-for-one basis.

The Bank expects that the market will find its own pricing for these deposits. But if non-clearing banks get a poor rate for their liquidity deposits, they may prefer to hold them themselves. In which case indirect liquidity holdings may die out quite quickly.

Some bankers have pointed out that the paper concerns only sterling liquidity despite the fact that most major banks have large liabilities in other currencies, particularly the dollar. The Bank's view is that it is beyond its remit to say what non-sterling assets are of sufficiently high quality and liquidity to count – that is something for bank supervisors to decide at an international level through the Basle-based Cooke Committee which tries to co-ordinate banking supervision between different countries.

However, larger banks already actively manage their non-sterling liquidity by holding certificates of deposit and Government bills denominated in other currencies.

Other points of the paper which bankers are likely to raise with the Bank concern the definitions of liquid assets, and the need for a formula that is as simple as possible. It is quite easy for unscrupulous banks to "window dress" their balance sheets to make them look more liquid than they really are.

The end of club money will also deprive the discount houses of a plentiful supply of cheap funds from the banks, which could affect their profits. But the houses claim that club money had ceased to be as cheap and important to them as it was before.

US securities firm to join Stock Exchange

BY BARRY RILEY

DREXEL Burnham Lambert, one of the leading New York securities groups, has announced its intention to join the London Stock Exchange in time for the "Big Bang" changes on October 27.

The move is said to be part of Drexel's international expansion strategy and will allow the firm to expand its market making activities in non-US equities, with an emphasis on the UK.

However, Drexel failed to appear on a preliminary list of stock exchange equity market makers published earlier this month.

The list included only two American securities firms, Merrill Lynch and Goldman Sachs. But the stock exchange indicated at that time that other New York firms had requested technical facilities for market making and might enter into formal commitments at a later stage.

Only Merrill Lynch among the US firms has so far joined the stock exchange as a full member. Other firms, such as Drexel and Goldman-Sachs, have held back because membership would involve curbs on their activities in UK securities.

Until the Big Bang, London stock market firms are required to separate their broking and market-making activities in domestic securities, creating severe difficulties for US firms, which operate on an integrated basis. Merrill Lynch is the only US firm which has felt it worthwhile to set up the complex structures needed to comply with the stock exchange's requirements.

Banks on profit growth path

BY OUR BANKING CORRESPONDENT

THE UK's big four commercial (clearing) banks are expected to rack up an increase in their total profits of between 20 and 25 per cent to about £1.4bn in the first half of this year, according to City bank stock analysts.

The bank's interim reporting season got under way on Friday when Lloyds Bank reported a 27 per cent rise to £335m. However, these figures contained no surprises because they had been foreshadowed by the forecast which Lloyds made only a few weeks before during its abortive takeover bid for the Standard Chartered Bank.

Fresh results begin tomorrow with National Westminster Bank, the largest of the four clearers and continue on Thursday with the Midland Bank. Barclays Bank is due to report on August 7.

	1985 (£m) actual	1986 forecast*
Barclays	403	450–475
Lloyds	264	335†
Midland	151	185–210
NatWest	354	400–445

* Range of forecasts from de Zoete & Bevan, Messel, Hoare Govett and Greenwell Montagu. † Actual

The biggest boost to the banks' earnings is coming from their domestic operations in the UK where there has been strong demand both for consumer loans and mortgages. The decline in inflation has also held back the growth in the banks' costs, and the healthier economic climate should reduce loan losses.

On the negative side, the fall in interest rates has squeezed the profits which banks make by lending out the balances on their current accounts on which they pay no interest. More customers are also keeping their money in interest-bearing accounts, which has added to banks' funding costs.

The banks' international business is also likely to be lacklustre. Barclays made a large loss in Italy in the first half of this year, and other problems sectors like energy, shipping and sovereign debt will have made an impact. The provisions which banks make against doubtful debts may ease, but not much.

COMPUTER INDUSTRY

Peter Bruce reports on a West German group's success

Nixdorf's obsession with quality

KLAUS LUFT has developed a sort of bemused and very *disarming* facial arrangement which he uses to answer questions about how much longer Nixdorf, the West German computer group that he runs, can continue to grow so quickly.

The company's total sales have risen at an average 21 per cent a year since 1980. Revenue from outside Germany has grown an average 52.6 per cent in the same time. By the end of next year, Nixdorf will have doubled its DM 2.7bn ($1.3bn) 1983 turnover.

The value of the company's assets has doubled to DM 4bn in the last five years and financing this growth has seemed to be almost effortless. In 1984 Nixdorf went public, raising around DM 550m. Last year it raised a further DM 720m through a rights issue and since last June Mr Luft has had in his pocket permission from shareholders to raise another DM 1.5bn at any time in the next five years.

Nixdorf's strengths have attracted sceptics among the hundreds of analysts who specialise in the computer industry. Until now it has been fashionable to write the company off as rather bright but destined probably by virtue of its own size and the size of the competition to remain tied up in its traditional domestic and European markets.

Now even that may no longer be true. Nixdorf is about to announce that it has won a $100m order for its computers *from Montgomery Ward, one of* the biggest retail chains in the US. Not only will the order transform the company's profile in the huge US computer market, of which it has only a minute share, but the order will mark the end of the first direct clash with IBM on its home territory in a sector which Nixdorf regards as one of its specialities.

In many ways this is extraordinary. Heinz Nixdorf, Nixdorf's founder and chairman, died suddenly in March this year. It would have been quite reasonable to expect of a young West German company that it would at least pause for breath (or at worst begin to fall apart) after the passing of such a central figure.

But his successors have ploughed on at the same frenetic pace he used to set and a mere five minutes inside the group's Paderborn headquarters are enough to convince an observer that this is not just another West German office.

The people in it are very friendly and almost casual with each other. Young, relaxed and confident, Mr Luft, 44, and his deputy, Mr Arno Bohn, 38, fit perfectly into the mood, although nearly 24,000 employees around the world depend on them also being very smart.

It is part of a corporate legacy left by Heinz Nixdorf. The company is so highly decentralised, says one London *stockbroker, "that bits keep* breaking off like amoeba." Employees are encouraged to put their own ideas into practice. "Everyone has a target," says the analyst.

"The key to the success of our business is our human resources," says Mr Luft, who has spent most of his working life at Nixdorf. "You have to develop your own corporate culture. We invest a lot in young people to make them ready to manage growth." About 1,000 young job seekers have already been taken on in Germany this year alone.

This "culture," say Luft and Bohn, also operates as a defence mechanism, making it almost impossible to merge Nixdorf (even if the two majority-owning charitable trusts agreed) with something foreign to it. It implies that the company's independence is, at least among the employees, taken for granted despite periodic rumours to the contrary. "How can you have such a culture when you merge?" asks the chairman.

People not that close to, or whimsical about, the company argue that Nixdorf's success has more basic roots. Unusually for a computer manufacturer, they say, Nixdorf is not too preoccupied with fancy pieces of technology. The company is market and sales led and it makes a big effort in service and back-up.

Nixdorf's strategy has been to put itself about as a supplier of total computer systems—which it rather grandly calls "solutions"—to carefully targeted and scrupulously tended market niches. The company is at its strongest among small business users, retailers and banks. Considering that the group makes only 10 per cent of its sales outside Europe, Mr Bohn is able to claim that "we don't see saturation in our markets" with some justification.

Mr Klaus Luft: the key to success is "our human resources"

In this respect, the new US order could not have served *the Germans better.* It goes to a niche in which Nixdorf has always claimed to be strong, making it appear to be a company that knows where it is going in an often confused and fatalistic industry.

Nixdorf already has more than 5,000 terminals in the US and it has been in that market for more than 18 years. But instead of doing in America what it was doing in Europe, it was selling "little boxes" to use Arno Bohn's phrase — pieces of stand-alone technology. The effort to break away from conventional US industry practice and sell systems is very recent, making the $100m order, its biggest ever in the US, that much sweeter.

There should be no comfort, then, for competitors in the US or Europe in Nixdorf's commitment to niche-marketing. It did not stop the company from entering the telecom business in 1982 with private switching systems. By last year, it had claimed 10 per cent of the German PABX market against tough oldtimers like Siemens and SEL. There are niches everywhere, as Nixdorf has proved by becoming the biggest supplier of computer equipment to banks in Europe.

Luft and Bohn, consummate salesmen and incapable, it seems, of even contemplating failure, have begun *to* work other sectors. The insurance industry is, for instance, a new *niche for which Nixdorf has be*gun to market a "solution." The company has already found a launch customer in Austria. Factory automation is also being sized up, an unnerving prospect for Siemens, down in Munich, which has until now been able to count computer controls for machine tools in Germany as very much its own preserve.

Executives in *Siemens'* public switching division have also begun to cast faintly nervous glances at Nixdorf. Once a near monopoly supplier of public exchanges to the Bundespost, Siemens now has to share contracts with SEL. But might Nixdorf not be an ideal partner for a new consortium, be it foreign or German, trying to break into German public telecommunications? The Bundespost plans to invest in a new country wide digital network, first narrow then broadband, in the next 10 years most of which, it seems now, will go to just two contractors.

Mr Luft will be drawn only half-way. "Our place is in private systems," he says, looking not quite sincere, "but there is always the temptation to do something else." Even the scepticism about mergers and *synergy* disappears. "It could be different in public switching," he concedes.

Nixdorf though is still small beer in the world computer industry. Turnover last year of DM 4.9bn and net profits of DM 172m are almost loose change measured against Siemen's DM 54.6bn and DM 1.5bn, or IBM's $50bn and $11.6bn (pre-tax) in the same year.

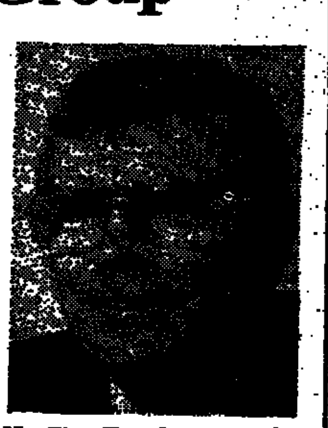
Despite this, or perhaps because of it, the company is liked in the equity markets. The stock it floated in Frankfurt at DM 380 two years ago is today DM 200 more expensive. It is now quoted in three Swiss bourses and is planning listings in Vienna and Paris. London, says Mr Luft, will be approached as soon as the EEC harmonises accounting rules.

The listings outside Germany probably have more to do with publicity than with a need for funds but the welcome in London will be, all being well meanwhile, a warm one. "These people," enthuses Mr Derek Bainbridge, Warburg Securities electronics expert, "are obsessed with quality."

APPOINTMENTS

Managing director for HTV Group

HTV GROUP has appointed Mr Tim Knowles to the new post of managing director from August 1. The creation of this new post follows the appointment of Sir Melvyn Rosser as chairman at the beginning of 1986. The late Lord Harlech held the dual positions of chairman and chief executive until his death in January 1985. Mr Knowles joined HTV Limited in 1969. In 1975 he was appointed financial director of HTV Ltd and became assistant managing director in 1981, a post which he will now relinquish. He was also appointed financial director of HTV Group when the company was formed on the restructure of the HTV group in 1976 and for the last eight years has been commercial/financial director. He has been chairman of Dataday since 1983 and is a director of Frost & Reed (Holdings), both of which are subsidiaries of HTV Group.



Mr Tim Knowles, managing director of HTV Group

★

TELFOS HOLDINGS has appointed Mr J. W. Mallas managing director. He has resigned from the board of The Chillington Corporation.

★

Ms Jean Davis has joined CHEMICAL BANK INTERNATIONAL as an associate director—corporate finance in the North American Group with responsibilities for coverage of US names. Ms Davis was previously with Chase Manhattan on the securities side.

★

Mr Eric Cater has joined the board of WOLD as financial director from August 26. He joins from Citicorp Venture Capital where he was a director with special responsibility for finance, administration, and the making and monitoring of venture capital investments.

★

Sir Anthony Jolliffe has been appointed chairman of C. & W. WALKER HOLDINGS, succeeding Mr Bernard Madden. Sir Anthony, former senior partner with Jolliffe Cork Ingram, formed with Mr John Pither the engineering concern Multiple Industries Group in 1982—which subsequently merged with C. & W. Walker in 1985. Sir Anthony is chairman of the Causeway Development Capital Fund, a director of Paccar UK, Fogarty and Japan Air Lines in the UK.

★

AUSTIN REED has made the following appointments: Mr Graham G. Smith is promoted to men's merchandise director and appointed a director of Austin Reed Ltd, the retail division, on August 18. Mr Peter M. Doane is joining Chester Barrie and Austin Reed Manufacturing as production director designate from August 4 and will be appointed a director of both companies. Mr Doane's most recent position was as chief executive of Lawtex Clothing, prior to which he was a senior consultant with Kurt Salmon. Mr Colin Wilson is to be appointed marketing director of Austin Reed Manufacturing with effect from August 18. Mr Wilson has been a director of Aquascutum's wholesale division for the past six years and was previously with Burberry. Mr Hugh W. McClure will become managing director designate of J. A. Robertson & Sons (Dumfries) the group's knitwear company, as from October 1. Mr McClure will be joining from Kintyre Knitwear (Scotland), where he is chief executive.

★

Mr John Glaves has been appointed regional director for TARMAC ROADSTONE NORTH WEST, a major sector of Tarmac's UK quarrying and blacktop operations. Mr Glaves replaces Mr Alan Rahilly, who has now taken up a senior appointment overseas within the quarry products division. Until the beginning of July, Mr Glaves was director of Tarmac Roadstone's production and transport in the east Midlands company.

★

Mr Christopher Mackrell has been appointed commercial director of TELFORD DEVELOPMENT CORPORATION. He succeeds Mr Michael Morgan, who was recently appointed general manager.

★

Mr Alan F. King, manager and secretary of the POLICE MUTUAL ASSURANCE SOC, will be retiring at the end of November. He will be succeeded by the present deputy manager, Mr Peter J. Sharpe. Mr Sharpe joined the society as assistant secretary from the Norwich Union in 1967 and became deputy manager in 1975.

International Appointments, Page 26

BASE LENDING RATES

	%		%
ABN Bank	10	Exeter Trust Ltd.	10½
Allied Arab Bank Ltd.	10	Financial & Gen. Sec.	10
Allied Dunbar & Co	10	First Nat. Fin. Corp.	11
Allied Irish Bank	10	First Nat. Sec. Ltd	11
American Express Bk.	10	● Robert Fleming & Co.	10
Amro Bank	10	Robert Fraser & Ptrs.	11
Henry Ansbacher	10	Grindlays Bank	‡10
Associates Cap Corp.	10	● Guinness Mahon	10
Banco de Bilbao	10	● Hambros Bank	10
Bank Hapoalim	10	Heritable & Gen. Trust	10
Bank Leumi (UK)	10	● Hill Samuel	§10
Bank Credit & Comm.	10	C. Hoare & Co.	10
Bank of Cyprus	10	Hongkong & Shanghai	10
Bank of Ireland	10	Knowsley & Co. Ltd.	10½
Bank of India	10	Lloyds Bank	10
Bank of Scotland	10	Mase Westpac Ltd.	10
Banque Belge Ltd	10	Meghraj & Sons Ltd.	10
Barclays Bank	10	Midland Bank	10
Benchmark Trust Ltd	10	● Morgan Grenfell	10
Beneficial Trust Ltd	11	Mount Credit Corp. Ltd	10
Brit. Bk. of Mid. East	10	National Bk. of Kuwait	10
● Brown Shipley	10	National Girobank	10
CL Bank Nederland	10	National Westminster	10
Canada Permanent	10	Northern Bank Ltd.	10
Cayzer Ltd	10	Norwich Gen. Trust	10
Cedar Holdings	11	PK Finans. Intl (UK)	10½
● Charterhouse Bank	10	Provincial Trust Ltd.	11
Citibank NA	10	R. Raphael & Sons	10
Citibank Savings	¶10¾	Roxburghe Guarantee	11
City Merchants Bank	10	Royal Bank of Scotland	10
Clydesdale Bank	10	Royal Trust Co. Canada	10
Comm. Bk. N. East	10	Standard Chartered	10
Consolidated Credits	10	Trustee Savings Bank	10
Continental Trust Ltd.	10	UDT Mortgage Express	¶10.9
Co-operative Bank	*10	United Bank of Kuwait	10
The Cyprus Popular Bk.	10	United Mizrahi Bank	10
Duncan Lawrie	10	Westpac Banking Corp.	10
E. T. Trust	11	Whiteaway Laidlaw	10½
Equatorial Tst Corp. plc	10	Yorkshire Bank	10

● Members of the Accepting Houses Committee. * 7-day deposits 5.69%. 1-month 6.03%. Top Tier—£25,000+ at 3 months' notice 9.72%. At call when £10,000+ remains deposited. ‡ Call deposits £1,000 and over 6¼% gross. ¶ Mortgage base rate. § Demand deposit 5.82%. Mortgage 11%.

MANAGEMENT

THE FIVE dozen top European executives flying first-class to Geneva to learn about business strategy got there faster than their distinguished tutor. Dr Henry Mintzberg arrived by *bicycle over the 100 km of hills* from Chamonix.

Passing motorists probably took him for a small-town lawyer on an outdoor holiday. Even off his bike, the slight figure with the bald head and thin-rimmed glasses scarcely looks like a management professor who attracts high-powered audiences all over the western world.

The 46-year-old Canadian's approach to management is equally unorthodox. He made his name in 1975 with a research study published by the Harvard Business Review under the title "*The Manager's Job: Folklore and Fact.*" It is still among the best-read articles the review has printed in its long history.

In doing the research Mintzberg broke convention by going out and observing at first hand what managers were doing. Almost all his predecessors had written from an ivory-tower standpoint. They peered at executive work from great intellectual height, relying on abstract reason to tell them what managers did for their living. The descriptions resulting from their "top-down" thinking were typically words like "planning, organising, co-ordinating and controlling."

The Canadian dismissed the ivory-tower explanations as folklore, saying his own "bottom-up" researchers showed that they "do not describe the actual work of managers at all." The fact was that executives' jobs consist of a bulging rag-bag of different tasks, of which half are done inside 10 minutes and only a tenth take over an hour.

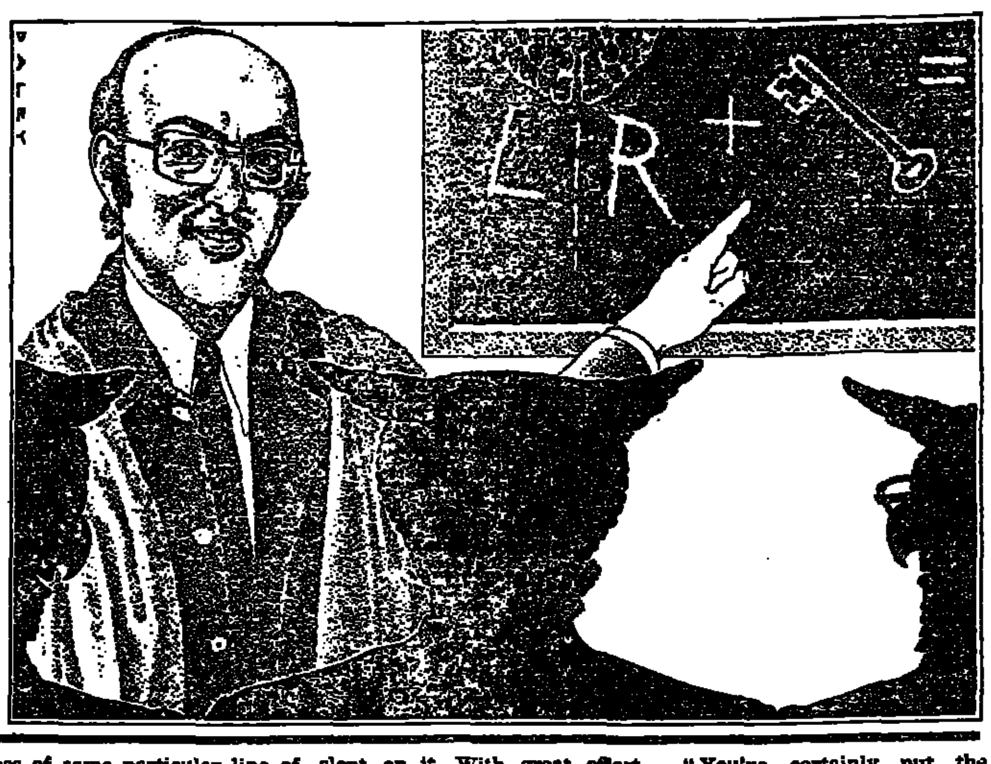
Thereafter the Professor of Management at McGill University in Montreal went on to study the structures of organisations, how power is used in them, and business strategies. In every case his focus has been on grassroots events. Where management performance is concerned, he thinks, the way things really happen on the ground is more important than the way they are supposed to happen according to organisation charts and policy plans.

By the stupendous standards of books such as *In Search of Excellence* and *The One Minute Manager*, Mintzberg's weightier tomes have sold modestly. His most popular book, *The Nature of Managerial Work*, has recently topped 60,000 and has been translated into five foreign languages, including Chinese. But his work, and even more so the bottom-up approach he adopted, have greatly influenced better selling authors. While not a guru grandioso, he is undoubtedly a guru grise.

The guru factor

The pundit who shuns ivory towers

Michael Dixon talks to Henry Mintzberg, a free-wheeling Canadian who has acquired a cult following among his peers



His teaching has gained extra appeal from the growing belief among western companies pressed by oriental competition that survival, let alone prosperity, depends on becoming more innovative. The key to that is becoming seen by more and more top executives as being the adoption of a different management style that can unlock the creative abilities of workers in the ranks below.

Take for example a typical comment by a member of the audience at the strategy seminar in Geneva, which was organised by Management Centre Europe. "Virtually everyone here is preoccupied by the need to develop new management styles," said Crispin Brown, director of the French operations of the Ingersoll Engineers consultancy. "We all see hope in Mintzberg's message that what goes on at the grassroots is often a more productive resource than lofty thinking in top-floor offices."

While the McGill professor's influence on managers is in a down-to-earth direction, however, the thinking which lies behind his teaching is distinctly cerebral. He himself has been greatly influenced, for instance, by the brain research of the American Professor Roger Sperry, which won a Nobel Prize for medicine in 1981.

Sperry found that the brain is divided into two halves, each having a different function in enabling people to cope with complex reality.

The right half deals with the complex as a whole, building the details into a rounded picture much as the eye takes in a landscape. It is the half which is thought to underpin artistic and other essentially "synthesising" activities including engineering and industrial design.

The left half's function is to analyse the complex into various *component parts*. It then organises them in conventionally rational sequences, as exemplified by numerical equations and carefully chosen sentences.

Although Mintzberg's own work reaches the public in the form of *considered* sentences, they initially come into his mind less as strings of words than as connected visual images. So he operates primarily from the right side of the brain. And his research convinces him that the same is true of the bulk of people who actively manage shop- and office-floors, as distinct from sitting in back rooms and thinking about it.

Even at the highest level, he denies the orthodox view that good management starts with logical analysis and forethought. He told the Geneva seminar what he has been arguing for years, that a successful business strategy is rarely if ever thought up in advance by executives. It comes into being for the most part by accident, and the manager's role is to recognise it as it emerges and turn it to profit. Far from being devisers of strategies, executives are first and foremost diviners of them.

Moreover, while emphasising that rigorous analysis and planning are also essential, Mintzberg says it is only after managers have sensed the fruitfulness of some particular line of action that such left side of the brain activities can fully come to their aid.

One of his favourite illustrations is the way Honda took over the American motor-cycle market with its mini-bikes in the 1950s, so shattering most western manufacturers, including those in Britain.

A management consultant's report commissioned soon afterwards for the benefit of the British industry portrayed the Japanese company's US triumph as a model of scientific research, planning and control. The nub of the report was that for years in advance Honda had been building a low-cost springboard for its mini-bike invasion by developing volume sales in Japan's domestic market. Then, having got down to a price at which it had worked out that Americans would buy, the company struck in force.

When the five men who accomplished the invasion were interviewed later by the *American writer* Richard Pascale, they told a different tale.

A measure of their market research is that they arrived in the US just after its annual motor-cycle buying season had *ended. Mr Honda sent them* there to sell, not the small bikes, but the company's most powerful machines, which he expected to appeal to Americans because their handlebars were "shaped like the eyebrows of *Buddha*."

Having little US currency, the assault party rented cheap premises and did everything themselves, including sweeping the floor. Two of them even slept on it. With great effort they managed to sell a few big bikes, only to have them angrily returned. Their machinery, while robust enough for the average Japanese, was too fragile for hard-riding Americans. Honda's engineers took months to solve the problems.

Meanwhile the five stayed in places with little to do but talk. That may be why an alternative sales approach eventually occurred to them.

To keep down costs they travelled around on Honda mini-bikes, which US citizens frequently came up and admired. Might that not mean Americans would buy them? The question was put to headquarters which, after a good deal of resistance, told the five to have a try. The failing assault soon became virtually an occupation.

"Once the sales took off, Honda developed them with first-class planning," Mintzberg told the seminar. "But the successful strategy just evolved from the muddled grassroots effort of those five men on the ground. The only strategic thing top management did was let them get on with the job. It didn't keep threatening to scrap the project unless they showed some return very soon.

"How many western managements would give such trusting backing? How many western export teams would happily sweep the floor?"

Although the parable clearly impressed the audience, several of them quickly protested that they had gone to Geneva seeking something more practically useful.

"You've certainly put the finishing touch to convincing me that we need to let light into our management to encourage initiative right through," said a chief of a European group. "But what I need you to tell me is how. How, for instance, do I get my executive colleagues to take the point and act on it—particularly middle-management, where the worst inertia lies?"

Whereupon the McGill University professor showed his academic Achilles heel. He did not know what companies should do in the future to make themselves more innovative; he knew only how it looked to have been done in the past by the handful of companies he had studied.

All he could say was that successful innovation was unlikely to occur often under managements obsessed with left side of the brain activities such as comprehensive planning. "Even good market research does not create markets for products which don't yet exist. You don't get that creative spark from the system."

Probably the best thing top managers could do was fill their active executive jobs with skilled right side of the brain operators who had shown they had enough sense of the company's business and character to keep it moving forward in a balanced way. Not until then could company chiefs use the maps provided by analysis and suchlike in steering precisely where they found it best to go.

Previous articles in this series appeared on June 30, July 2, 7, 14 and 21.

Management abstracts

Cutting jargon in public accounts. R. Burn in Accountancy Age (UK), May 15 1986 (½ page)

Explains the thinking behind the simplified design of the Mersey Health Authority's published financial review of 1984-85 — combining pictures and text, with a summarising pull-out, and using an informal, jargon-free, textual approach to generate and maintain public interest.

Management consultancy: the international scene. K. Volder in De Accountant (Netherlands). April 1986 (6 pages) in Dutch. English version available.

This paper (original title: "What can Dutch consultants learn from others") turns out to be a review of management consultancy in several countries: did you know, eg, how many inhabitants correspond to one consultant in the UK? The answer is 11,000 (compared to 3,000 in France and 56,000 in Italy). If this sort of information interests you, read this paper. Also contains a list of questions Dutch consultants should ask themselves.

Entering growth markets. S. P. Schnaars in Business Horizons (US). March/April 1986 (10 pages).

With a host of examples, examines the relative merits of entry at the pioneering, early or late stages by companies into growth consumer markets; looks at arguments for and against each entry stage and produces statistics of cases where pioneers maintained dominant positions, lost out to later entrants, and failed to survive in the market. Concludes that if you are going to enter, enter big: companies with stronger marketing, entering late, will usually win; the "ripeness" of the market affects the success of entry timing; and dominantly, no one timing strategy proves best in all instances.

The state of strategic planning. R. N. Paul and J. W. Taylor in Business (US), Jan/March 1986 (7 pages).

Reports, from a survey of Fortune 500 companies, that strategic planning in major US industrial companies is not nearly as extensive as the popular business press and academic journals might suggest; argues that what are regarded as signs of death in strategic planning are no more than growing pains.

Three prescriptions for advertising clutter. M. L. Ray & P. H. Webb in Journal of Advertising Research (US), Feb/March 1986 (8 pages)

Suggests corrective action is needed to cope with the effects of "clutter" (ie more and shorter ads) in TV advertising. Research shows the need to review what is already known about how advertising works, do systematic research of effects and take vigorous action, inter alia, in making longer commercials which force respondents to think about how products fit into their lives.

Strategic marketing options. P. Wright in Business Horizons (US), March/April 1986 (6 pages)

Describes how three companies—Coca-Cola, RCA and Rockford Headed Products (fasteners) — responded to difficulties from changing competitive environments by choosing from three available strategic options. RCA chose least-cost, Coca-Cola differentiation (convincing consumers that its products were of superior quality) and Rockford adopted niche marketing (satisfying the needs of small clusters of buyers). Outlines the implication of each strategic option for international marketing, profitability and innovation.

Negative press: is your company prepared? R. E. Reidenbach & D. L. Sherrell in Business (US), Jan/March 1986 (8 pages)

Discusses the effect of bad publicity on a product; suggests that there are four responses a company can make: instinctive reaction, stonewalling, formal compliance, and seizing the initiative; suggests that, for all but small, nagging situations, seizing the initiative may produce the best results, not least because it has the effect of diffusing criticism across the whole industry.

Office automation benefits are heading our way. D. Tapscott in Datamation (US), March 15 1986 (6 pages)

Argues that the first two phases of OA—word processing and personal computing—were oversold and claims that only by integrating all OA facilities within a work group will real benefits be achieved; describes the experiences and aspirations of Citibank Canada in pursuing this goal, mentioning products and methods.

Smoking—rights and needs. D. Tong in Facilities (UK), March 1986 (1½ pages)

Discusses the conflicting issues raised by smokers and non-smokers in office situations; suggests that there is increasing pressure on personnel and facilities managers to find a solution to the views and interests of all employees; outlines some ways of implementing a smoking policy, ranging from "opt-in" schemes to total bans.

These abstracts are condensed from the abstracting journals published by Anbar Management Publications. Licensed copies of the original articles may be obtained at a cost of £4 each (including VAT and p & p; cash with order) from Anbar, PO Box 23, Wembley HA9 8DJ.

Brazil's steel industry

The skeleton comes out of the cupboard

By Ivo Dawnay in Rio de Janeiro

THE PRESIDENTIAL inauguration last week of the Acominas steel plant in Brazil's mining heartland of Minas Gerais would, on the face of it, appear a cause for celebrating. After years of delays and soaring costs, the plant is finally coming onstream.

The earlier announcement by President Jose Sarney of a radical new development plan will have added further grounds for rejoicing. The plan holds out the promise of significant relief for the steel industry from its crippling burden of debt, through debt-for-equity swaps financed by the new National Development Fund.

But none of this masks the fact that the Brazilian steel industry has long been regarded as one of the public sector's worst black spots. Despite climbing from nineteenth in the 1970 world steel producers' league to seventh today, and despite record production and export levels and rising capacity, the state steel sector is an industrial skeleton which can no longer be kept in the cupboard.

By the standards of the painful rationalisation now nearing completion in Western Europe's steel sector, many Brazilian producers—though by no means all—are plagued by very serious inefficiencies.

The Acominas plant, at least six years behind schedule and costing \$6.2bn (more than double the project's original budget), is itself a symptom, not a cause of the malaise. A *combination of the world recession* and political indecisiveness of past governments—rather than the notorious bureaucratic bottlenecks created by the overmanned and inefficient state steel holding company, Siderbras—can be held to account for many of the plant's costly delays.

But the spotlight which the new rails and shapes mill has focused on Siderbras has *raised the pressure for a big* overhaul of the industry.

The central problem for the government, locked in a gruelling day-to-day struggle with inflationary pressures, is how to clean up the steel industry *without increasing* unrealistically low product prices. To do so would not only undermine the export potential of Brazil's third largest foreign exchange earner. It would, much more seriously, mean breaching the price freeze that lies at the heart of Brazil's February economic package, the Cruzado plan.

On the other hand, it is clear that the state steel sector's \$15.6bn in borrowings is no longer acceptable. The debt burden, \$6.8bn in foreign loans, \$1.3bn in short-term bank lending and \$7.5bn from government sources, now equals 91 per cent of Siderbras's operational capital.

"As a consequence," Mr Amaro Lanari, the company's president, pointed out in a recent public debate, "financing expenses now equal 47 per cent of the total value of sales . . . a fact that forms the basis for accusations of dumping made by foreign competitors."

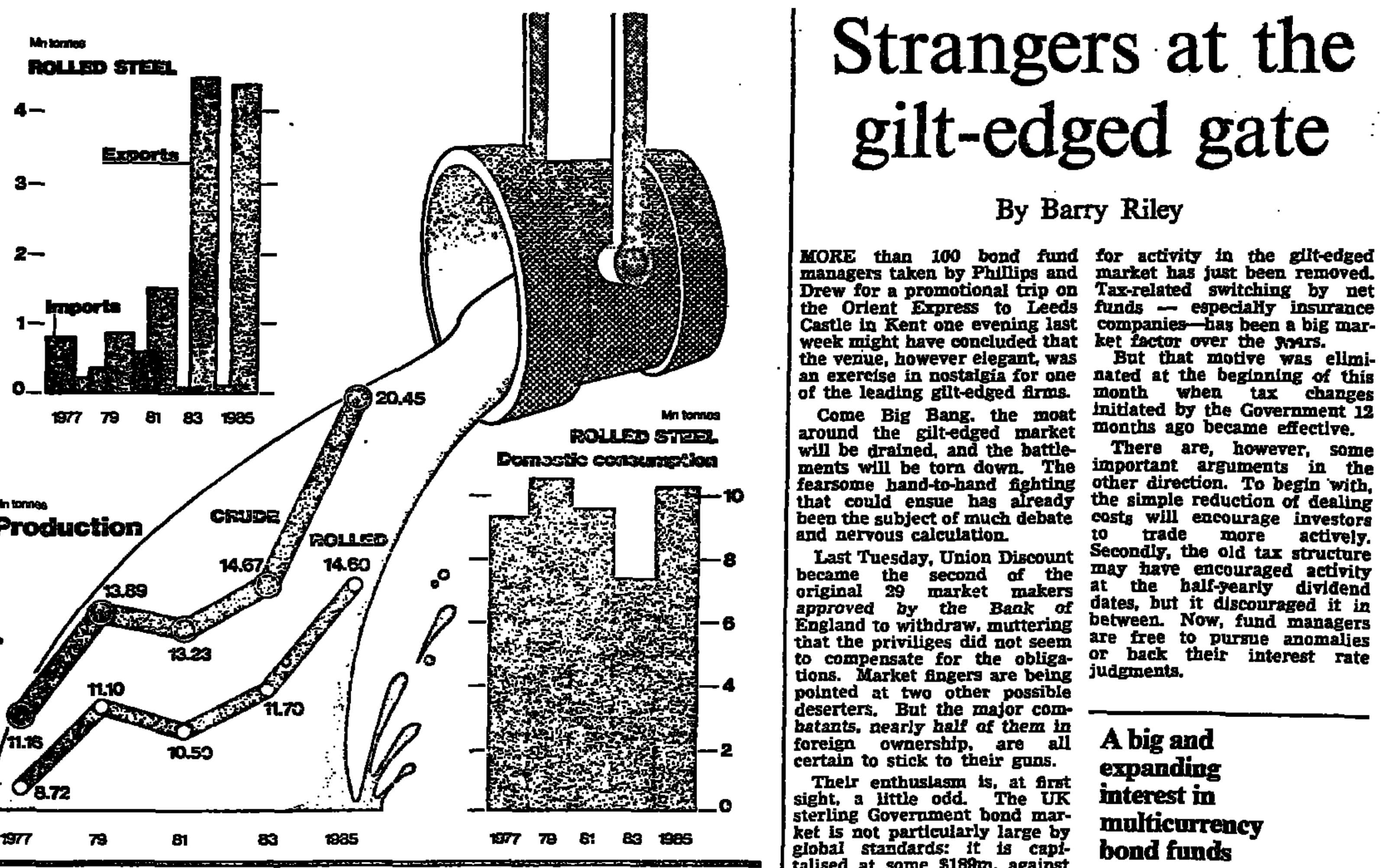
Without the debt problem, Siderbras argues, it could be making a 20 per cent annual profit on this year's expected output of some 22.5m tonnes of crude steel. This claim tends to elicit scant sympathy from foreign rivals.

The drive for growth might have been more financially sustainable if the government of 1979 to 1985 had not insisted on control of flat product prices under rules requiring proofs of rising costs before increases were agreed.

With the full weight of the recession, average delays on construction programmes reached seven years. Consump*tion fell 30 per cent in three* successive years at the beginning of the 1980s.

The rapid economic expansion that had seen Brazil transformed from an importer of around 4m tonnes in 1974 to a near self-sufficient consumer of some 12m tonnes in 1980 evaporated almost overnight. Only this year should consumption be restored to the 1980 level as demand grows by an estimated 12 per cent.

Siderbras estimates that the government's pricing policy cost it \$5bn, delayed production projects \$9bn, with a further \$1.6bn loss coming from inflationary effects and the move*ments of the yen against the* dollar.



Source: Brazilian Steel Institute.

At last, however, projects at the five main producer companies within the group are all nearing completion and should be finished by 198. Acominas, itself, should be fully on stream by the end of next year, producing some 2m tonnes of steel annually, mainly for the construction and railway industries.

Usiminas, its *rival* in Minas Gerais with an output of 3.5m tonnes, is completed, as is the bulk of Sao Paulo state's 3.5m tonne Cosipa mill. The third stage of CSN's Volta Redonda programme should finish this *year*, and the Tubarao plant in Espirito Santo—a joint venture with Kawasaki and Finsider and the jewel in the Siderbras crown—is producing a highly profitable 3m tonnes of slabs for export yearly.

To ensure the conclusion of the expansion programme the government this month agreed to allow a further Cz 7.3bn (\$527m) to be spent by Siderbras on investment over the *next 18 months, a 41* per cent increase on last year at a time when other state companies have had their investment budgets pared.

Now the Government has unveiled a long-awaited financial restructuring package intended to resolve the industry's debt problem, with government to take up an equity stake in Siderbras in place of a large portion of the company's debt.

For Siderbras officials, this kind of package is only half the battle. "If the company is not allowed to have real prices, the issue will be transferred again to the future. At the moment, *with the Cruzado* plan, a realistic price rise just isn't on," says the senior industry executive.

Even if the government's magic wand can resolve this highly sensitive political problem, there are many who believe that fundamental weaknesses in the Brazilian industry remain.

Many foreign steel analysts, while almost universally approving of the Tubarao plant with its *well integrated* coal deliveries and good port facilities, believe that older companies like CSN and Cosipa have fundamental flaws.

Weaknesses like overmanning and heavy handed bureaucracy can be ironed out as the government presses to introduce more competition between plants. Outdated furnaces, and high transport costs for iron ore and coal are less easily tackled.

In January, Consider, the Government's metals and steel industry watchdog, calculated that 1986 production should be sufficient to meet internal needs while maintaining export sales of 38 per cent of output, or 7m tonnes, worth some \$1.6bn. The industry is less sure.

There is considerable concern that if demand continues at its present 11 per cent per annum growth rate, Brazil's hard won share of the world market could be threatened.

"We think exports at the moment are a little high," Mr Rudolph Buhler, of the Brazilian Steel Institute, said. "We *don't actually want* a larger share of the world market, but we do want to hang on to what we've got. If the domestic market's growth continues at the current rate, we are going to need new capacity."

Similarly, if Siderbras wins the full 34 per cent price rise it claims is essential to allow for profits—a highly improbable scenario in the short-term—*what then will happen to its* foreign sales?

The surest prediction for Siderbras is that it will remain one of the public sector's most worrysome black spots—inefficient, overmanned and bureaucratic—for quite some time to come.

Strangers at the gilt-edged gate

By Barry Riley

MORE than *100 bond fund* managers taken by Phillips and Drew for a promotional trip on the Orient Express to Leeds Castle in Kent one evening last week might have concluded that the venue, however elegant, was an exercise in nostalgia for one of the leading gilt-edged firms.

Come Big Bang, the moat around the gilt-edged market will be drained, and the battlements will be torn down. The fearsome hand-to-hand fighting that could ensue has already been the subject of much debate and nervous calculation.

Last Tuesday, Union Discount became the second of the original 29 market makers *approved by the Bank of* England to withdraw, muttering that the priviliges did not seem to compensate for the obligations. Market fingers are being pointed at two other possible deserters. But the major com*batants, nearly half of them in* foreign ownership, are all certain to stick to their guns.

Their enthusiasm is, at first sight, a little odd. The UK sterling Government bond market is not particularly large by global standards: *it is capi*talised at some \$189m, against more than \$1,000bn for US Treasury bonds.

The Eurobond market, on the gilt-edged market's doorstep, is worth over \$500bn, and turnover is at the rate of more than \$3,000bn annually, against maybe \$200bn reported for gilts by the London Stock Exchange.

In the past, the gilt market has kept two firms of jobbers and maybe 10 firms of brokers reasonably rich. But the commissions scale is to be abolished; and it is generally agreed that commission will disappear entirely on most institutional-size business.

So how can the market accommodate 25 or so official market makers (which have to earn a return on more than £500m of dedicated capital) not to mention other firms which will still try to scratch a living as agency brokers?

One very crude analysis is that transactions at present bear a ⅛ per cent jobbers' turn plus a ⅛ broker's commission. In the *new market*, the *spread* might be only ⅛, with no commission. So investors will have to double their volume of transactions for maintain their revenue. And the firm's costs have been greatly increased.

Moreover, the pessimists might argue, one major reason for activity in the gilt-edged market has just been removed. Tax-related switching by net funds — especially insurance companies—has been a big market factor over the years.

But that motive was eliminated at the beginning of this month when tax changes initiated by the Government 12 months ago became effective.

There are, however, some important arguments in the other direction. To begin with, the simple reduction of dealing costs will encourage investors to trade more actively. Secondly, the old tax structure may have encouraged activity at the half-yearly dividend dates, but it discouraged it in between. Now, fund managers are free to pursue anomalies or back their interest rate judgments.

A big and expanding interest in multicurrency bond funds

A third reason why volume will expand is that the new structure of market makers linked by inter-dealer brokers will cause an explosion of inter-professional trading. This will boost the market's liquidity, but while some market makers might gain cannibalistically at the expense *of others, through* clever positioning of their trading books, the system as a whole can only profit through the participation of genuine outside investors.

A fourth factor, the introduction of a major new international dimension, is potentially the most important, although the least predictable.

Foreigners have from time to time in the past been active investors in the gilt-edged market, but now leading American banks and securities groups will have permanent sales teams whipping up business in gilts and other sterling bonds.

This comes at a time when there is a big and expanding interest in multicurrency bond funds which treat the peculiarities and divergencies of national bond markets not as a problem but as an opportunity.

The sterling bond markets, in this context, have the attraction that the currency tends to move differently from other major currencies such as the US dollar, the mark or the yen, something that also applies to interest rates.

Moreover, there is a wide and sophisticated range of instruments — even index-linked [illegible] — with a particular emphasis on long-dated bonds, which offer extra leverage to the bind investor, and are not found, for example in the Eurobond market.

A large group of banks and securities firms is now seeking to develop a global presence in the bond markets. A considerable *number* are trying to enter the US Treasury bond market as primary dealers, despite the problems in making money in that role.

Presumably this internationalisation is what the Bank of *England* wants. It will improve liquidity and diversity of view, potentially making funding easier. Yet there are also dangers, in that the gilt-edged market could be at the mercy of panicky swings of view by ill-*informed* overseas bond fund managers.

It is certainly an unsettling time for the domestic fund managers who used to dominate the market but who now need to adapt to the new structure without the benefit of the enormous resources—and elevated salaries—available to them in the market-making firms.

They may conclude that the new market, as designed by the Bank of England, *is structured* more to protect a surfeit of market makers than to serve investors. The proposed screen service is poor, with only indicative middle prices, and no firm bid or offer quotations.

Certainly transaction costs will go down, and it will be possible to deal easily in a bigger size. On the other hand, the institutions may have to bump up the cost and complexity of *their* own bond fund management departments in order to take advantage of the new market's opportunities.

At the same time, the market is likely to be affected in highly unfamiliar ways by the pressures from the new international participants. It could became just another offshoot of the global market.

Ironically, Leeds Castle, following centuries of blue-blooded *ownership*, wound up being bought by the heiress to an American fortune.

COUNT DOWN DAYS TO BIG BANG 91

FINANCIAL TIMES SURVEY

Monday July 28 1986

Italian Defence Industry

Italy exports 60 per cent of the output of its defence industry. Impetus has come from the Italian forces' re-equipment programme, and from good markets among Opec and other developing countries.

Sixth in the world league

By James Buxton

UNTIL QUITE recently, Italy's success in becoming one of the world's major exporters of military equipment was a source of surprise and even awe among the long-established arms manufacturers of Europe and the US.

How, they asked, could a country that has one of the lowest levels of defence spending in relation to gross domestic product in Nato support a defence industry which ranks sixth in the league table of arms exporters — coming after the US, Soviet Union, France, the UK and West Germany?

How, they questioned, could the Italian defence industry achieve this performance when it employed only 80,000 people —just 1.2 per cent of the Italain industrial labour force, compared with the 435,000 people (7.2 per cent of the industrial labour force) employed in the British defence sector?

How could one explain the fact that, while Britain in 1983 devoted no less than 50 per cent of its total spending on research and development to defence, and France 33.2 per cent, Italy contributed a mere 6.1 per cent — and yet still managed to retain about 3 per cent of the world defence sales market, against 6 per cent for Britain and 9 per cent for France?

The position of Italy's defence industry is now well established about the Western world's major arms manufacturing countries. But the spurt of *growth which brought the* Italians to such prominence in the late 1970s and early 1980s is over.

Even from the highly uncertain defence industry statistics, it is clear that Italian arms exports have peaked. In 1983 they reached L4,400bn; the following year they were down to L3,900bn; in 1985 they stood at L4,500bn — a decline in real terms compared with 1983.

Even so, Italy continues to export around 60 per cent of the output of its defence industry — compared with about 35 per cent in the cases of both Britain and France.

Two things happened to push the Italian defence industry to its present prominence. From 1975 onwards the Italian armed forces embarked on a re-equipment programme which, though modest by some countries' standards, meant almost a doubling in real terms of spending on military equipment over the 1978-85 period.

At the same time Italy found and successfully exploited good markets in the newly rich Opec countries and other developing *nations. Developing countries as* a whole accounted for 93 per cent of Italian arms exports over the 1978-82 period, compared with the average for France, Britain, West Germany and Italy of 85 per cent. The surge in demand came at a moment when the Italian defence industry was just about ready to respond to it. Italy's energetic and imaginative defence equipment salesmen did the rest.

Italy had big successes in, for example, warship production. One type of Italian frigate, the Lupo class, sold well, notably to Venezuela and Peru. In 1981 Cantieri Navali Riuniti, the Italian warship building offshoot of the state-owned Fincantieri *group, won a record* $1.6bn order to build six Lupo frigates, four corvettes, a supply ship and a floating dock.

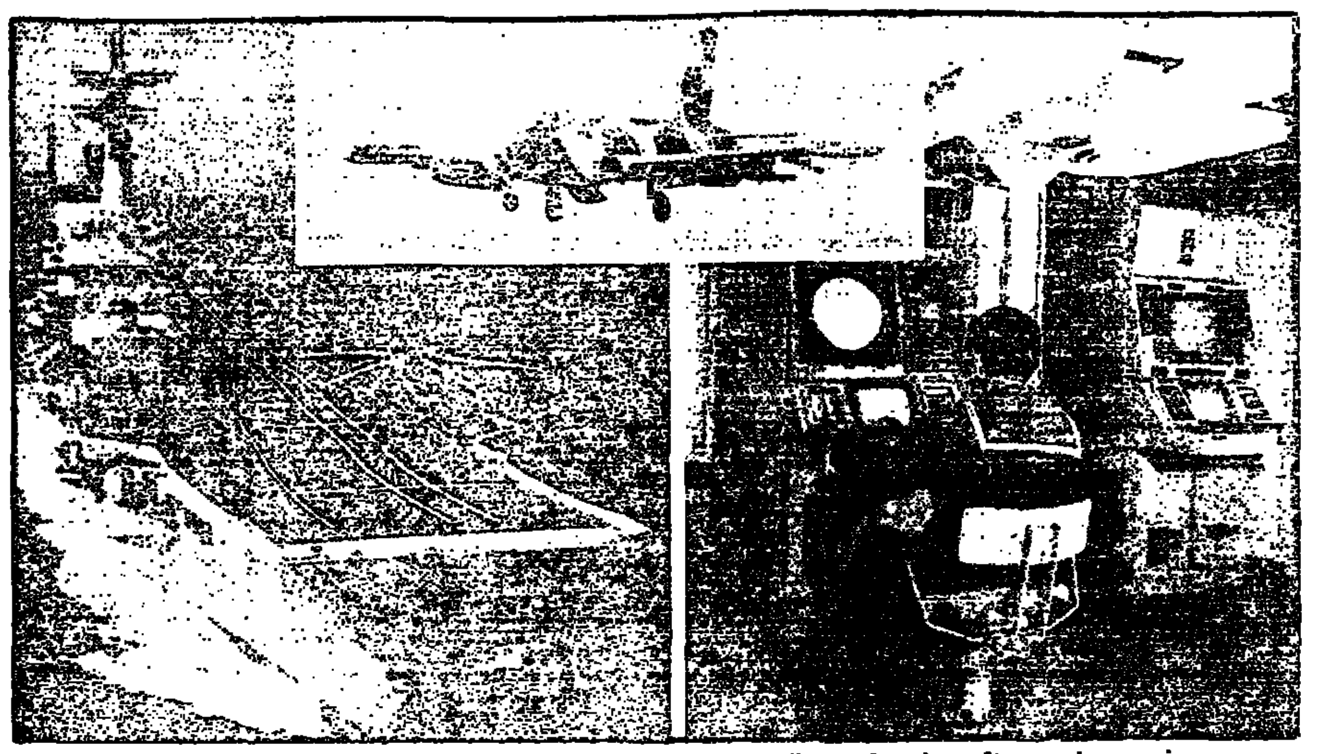
Only the supply ship has been delivered because Iraq, deprived of its ports by the war with Iran, has been unable to receive them, though at least in part it has paid for them. But that is another story. These big orders benefited not only the shipbuilding sector, but much of the rest of the Italian defence industry: companies such as Oto Melara, which makes guns and missiles, Fiat Aviazione, which makes General Electric turbines under licence, Selenia, which produces missiles and radar, and several other companies which formed a loose consortium called the Melara Club.

Other notable beneficiaries of the boom years were: Agusta, selling helicopters made both under licence from US companies and, increasingly, to its own designs; Aermacchi, the predominantly private-sector *maker of jet trainers and light* fighters, some of which distinguished themselves against the Royal Navy in the Falklands war in 1982; and Snia BPD, which has almost consistently done well from selling ammunition to Iraq since the Iran-Iraq war began in 1980.

The decline in the spending power of the Opec states hit Italy hard, even though its effects took time to work *through. For some companies,* such as Agusta, it caused grave financial problems; and even now not many Italian defence companies are doing well in terms of profits.

With its still relatively small domestic market, the Italian defence industry had to make a reassessment. This culminated, in mid-1984, in a two-day conference in Rome attended by all the major figures of both the industry and armed forces. One encouraging conclusion of that conference was that the industry had reached a level of maturity which made it relatively well-placed to compete in the still-flourishing, but demanding and protected, Nato defence market.

But another conclusion, rammed home in a tough speech by Mr Cesare Romiti, managing director of Fiat, then beginning to take a strong new interest in the defence sector, was that the industry was poorly organised: *there were too many companies* of medium rather than large size; there was needless competition, even between state-owned groups, and excessive fragmentation of production in almost every field. Indeed, to an outsider the Italian defence industry sometimes seems a bewildering piece of lattice-*work, the hybrid product of* enterprising Italian private-sector businessmen and of political intrigue blended with technical competence that characterises the Italian state sector.



Top: an Aermacchi MB-339K Veltro 2 support aircraft. Left: the aircraft-carrying cruiser Garibaldi. Right: the weapon control system on board Garibaldi

Some of those problems have been remedied by the setting up of consortia between the different companies in specific sectors, or to produce particular products; while the big groups, such as Fiat (which, if its control of Snia BPD is taken into account, is Italy's biggest defence company) have continued to acquire and consolidate stakes in subsidiaries. But there have been no mergers, and many of the problems of the structure of the defence industry remain, as explained by Dr Michele Nones in his article in this survey.

But Italy should still be able to reap the benefit of its development over the past decade. Its 15 per cent participation in the Panavia Tornado project — shared with Britain and West Germany — has paid off in terms of extra know-how and what is likely to be an increased stake in the European Fighter Aircarft project.

Agusta's patient and often troubled road to relative self-sufficiency in design of helicopters looks like paying off with the project to build a mark II version of the Mangusta anti-tank helicopter, along with Britain, the Netherlands and Spain. Agusta is already well advanced on producing the prototype of the EH 101 naval helicopter with Westland of the UK. There is a successful collaboration in missiles between Italy and France on the Otomat.

A theme in most of these collaborative ventures is the link between Britain and Italy, most notably in aerospace. This often rivals the close connections in the defence field that have been established between France and West Germany. British and Italian companies *usually get on well together in* the defence field. Two of Italy's defence electronics companies have British participation, while Fiat is now a minority shareholder in Westland, after defeating — in the company of Sikorsky—the European consortium's bid to rescue the British company. A prominent member of the unsuccessful consortium was Agusta.

Where the Italian defence industry has so far had little success is in penetrating the US defence market. The con*cept of the two-way street in* defence sales between the US and other Nato countries means very little in the case of Italy. In 1984 Italy imported about L1,100bn worth of equipment from the US, against exports to the US of between L200bn and 250bn. Not even the success last year in Beretta, of having its pistol chosen as the preferred pistol of the US armed forces, will make more than a small dent in the figures.

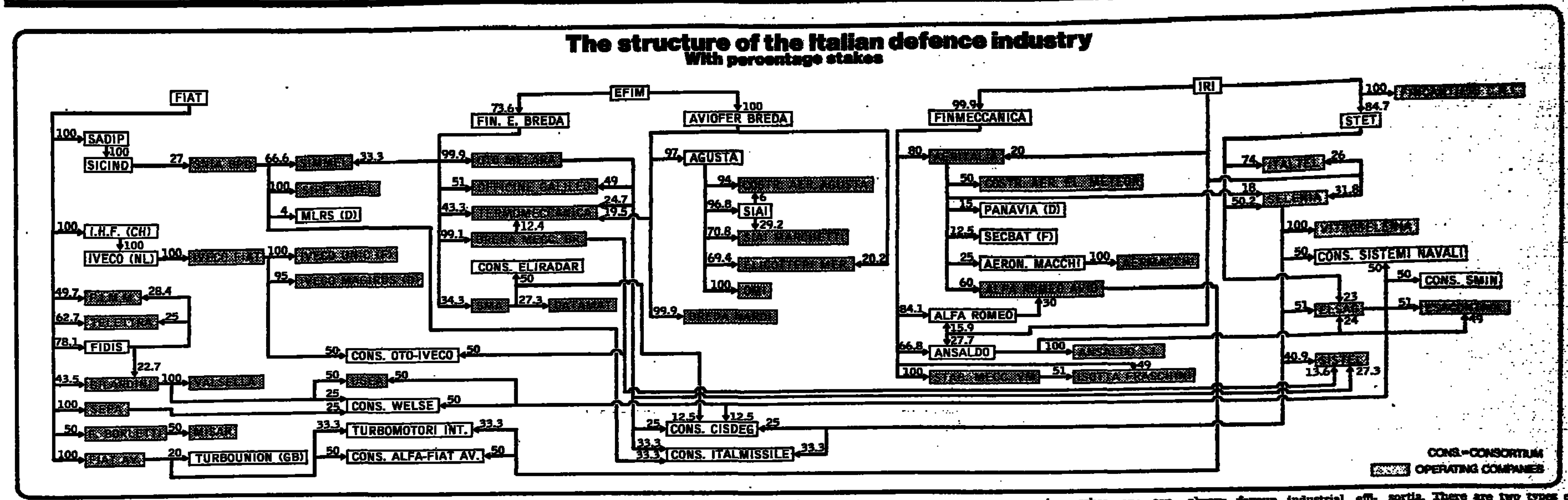
Nevertheless the Italian defence industry is striving to win contracts under President Reagan's strategic defence initiative programme, despite *the fact that the Italian govern*ment has only recently agreed to start negotiating an agreement to cover this kind of collaboration. Fiat, inspite of the shadows cast by the 15 per cent stake in it held by the Libyan government, is anxious to get as close as it can to the US Defence Department, *through association with* US defence contractors such as United Technologies, the parent of Sikorsky.

But many hopes in the Italian defence industry are pinned on *a possible second re-equipment* programme for the Italian armed forces, which might accompany a reform of the prolix command and equipment procurement structure at the Ministry of Defence. Mr Giovanni Spadolini, the energetic Minister of Defence, has set up a Defence Industry Committee *in an attempt to co-ordinate the* needs of the armed forces, Italian foreign policy and the defence industry.

Last summer he presented to parliament a bill to regulate the somewhat haphazard procedure under which the government grants arms export licences and controls end-user certificates. But the Defence/Industry Committee has no permanent staff: while the bill, along with other essential measures regarding the armed forces, is marooned in parliament.

In the meantime, many people, both in the industry and in the armed forces, would like to see the creation of a more orderly and less subtly politicised system for the award of major defence contracts in Italy.

ITALIAN DEFENCE INDUSTRY 2



Organisation

Greater degree of specialisation needed

THE ITALIAN defence industry has made important progress in the last ten years, narrowing the gap between it and the leading European armaments producers, France, Britain and West Germany.

Italy has had major achievements, both qualitatively and quantitatively, as a producer of defence platforms, most notably in the field of warships, but also in aerospace and helicopters; and it has done well as a producer of defence systems, in the areas both of artillery and of missiles.

This has been made possible by two convergent factors. There has been a progressive increase in Italian defence spending, especially that devoted to major military equipment which, according to Nato, almost doubled in real terms between 1975 and 1985. Even more striking, there has been a big rise in exports, taking Italy to sixth place in the world with a 3 per cent share of the world market, of which 97 per cent consisted of sales to non-industrialised countries and 53 per cent to Opec countries alone — with all the consequences which that entails.

But, in the last two years, the market in non-industrialised countries has presented difficulties, due mainly to the fall in oil revenue and to rising debt. A further problem, but a limited one so far, is the arrival on the world market of new arms producers aiming at just those areas of medium-level technology where Italy, until now, has been strong, and where low labour costs represent one of the principal ingredients of success.

Now that the phase of fast expansion is over, attention is once again concentrated on the structural problems of the Italian defence industry. These problems must be solved if Italy is to consolidate the position it has achieved.

Six big parent groups, each with military sales of more than L500bn in 1985, lead the Italian defence industry. The Fiat group comes first with military sales amounting to about L1,600bn taking into account the sales of Snia BPD, which it effectively controls. Fiat is the only private-sector group among the big producers. The other five groups are in the public sector. The state industrial holding company, Istituto per la Ricostruzione Industriale (IRI), controls three groups, Finmeccanica (L900bn of military sales), Stet (L570bn) and Fincantieri (L500bn); while the much smaller state holding company EFIM controls two, Finanziaria Ernesto Breda (L1,070bn) and Aviofer Breda (L900bn).

There are about 75 significant Italian defence operating companies and about 50 principal sub-contractors. Some 38 of the 75 major companies are offshoots of the six main groups. There is also an important presence of foreign groups which, directly or indirectly, control 16 companies (seven of which are American). One of them, the Swiss company Oerlikon-Buhrle, is among the most important defence companies in Italy. Two important electronics companies are linked to British groups: Plessey has a stake in Elettronica, and GEC controls Marconi Italiana, a particularly dynamic concern.

The total value of annual military production is between L7,000bn and L8,000bn. But the average turnover per company is only about L100bn, which is small by international defence industry standards. Even the biggest single defence operating company, Oto Melara, has no more than L800bn worth of sales. There are holding companies, such as Aeritalia, which have a bigger overall turnover, but this is because they have an important civil side. Thus there is a major gap between the size of Italian defence companies and their European counterparts.

The major weakness of the Italian defence industry is the excessive number of companies and their subsequent smallness. This causes problems for marketing, which requires an extensive sales network and ever greater financial strength, both in the field of production, where industrial costs are always rising, and in research and development which absorb ever growing resources, given the long gestation periods of projects.

A second weakness is the insufficient degree of specialisation of each company and each group. In order to be sure of getting enough work, or simply in order to expand, companies have often been tempted to go after every single order, forgetting their traditional areas of expertise and experience and defying all economic logic. In this way their limited energy has been expended on duplicating products already well-established on the market, while other sectors, in which the Italian defence industry is having trouble taking off, or from which it is simply absent altogether, are ignored.

This has happened, in the past, in the field of trainer aircraft, opto-electronics, avionics, mines, and artillery ammunition (a sector in which the problem seems to be re-emerging). The situation is all the more serious when one considers that frequently decisions to compete with other Italian concerns have been taken by state-sector companies which are continually having to be refinanced by the state.

Apart from the repeated tendency of companies to try to supplant one another, the industry is excessively diffuse. There are three companies in the aero-engine sector and four in that making marine engines, three producing mines, the same number making ammunition, three in the field of radar, and no fewer than 10 in telecommunications. If, in the past, this has guaranteed elasticity and dynamism, in the long term it risks impeding the rationalisation which is needed.

The classic example of this prolixity is the aerospace sector, where each of the two state-controlled companies—Aeritalia and Agusta—seems to be intent on acquiring supremacy, on buying up subsidiaries and on initiating new and different product lines, instead of following a coherent plan for the development of industrial capacity.

Another problem is caused by the tendency towards vertical integration among the big groups. By taking control of important sub-contractors, they have put the latter into privileged positions which do not always favour industrial efficiency. Niches have been carved out for these sub-contractors which may not be genuinely competitive, and in the meantime resources are wasted which could have been used more productively on the principal activities of the companies which lead their sectors.

For both political and industrial reasons, the defence industry has changed profoundly in the last ten years, and the process is continuing. The big groups have pursued the goal of strengthening themselves through a policy of financial centralisation based on the purchase of (often large) equity participations in other companies.

The network of shareholdings has become more complex, linking together companies in which other shareholders are still represented, a process that is happening in both the public and the private sectors. This makes more difficult the indispensable task of rationalisation to give companies more viable dimensions. Only in one area has this problem been solved: that of the public-sector shipbuilding industry, even if there are still uncertainties over its marine diesel sector.

In the last few years, a second way of rationalising the productive structure has been followed, that of creating consortia. There are two types of consortium: those of a general kind, aimed at co-ordinating the policy of the participants in the whole sector; and those dedicated to producing single items of equipment. In the first category are Italmissile for missiles, Welse for underwater systems, Selenia-Elsag for naval systems, Cideg for the integration of naval weapon systems, and Cireas for aerospace equipment.

In the second category are Etiradar for the radar to be installed on the Italian version of the EH 101 helicopter, Smin for the system of detecting and neutralising naval mines, and Oto-Iveco Fiat for the second-generation battle tank and for the 6x6 wheeled anti-tank vehicle.

Thus, alongside the ability to acquire stakes in other companies and expand market shares, sectoral or dedicated agreements have been used to formalise and strengthen the alliances which have always existed. But, though this process may resolve certain conflicts of interest, it does not mean that others will disappear, while the fundamental problem of achieving a greater degree of rationalisation of the Italian defence industry remains.

Michele Nones

Aerospace

Sector difficult to restructure

THE ITALIAN aerospace industry is a good example of a defence industry sector that has achieved maturity in the past decade.

Some 75 per cent of the combined turnover of the two leading companies, Aeritalia and Agusta, is in the defence field; and each company has gradually pulled itself up to the point where it can now independently design and manufacture highly sophisticated aircraft.

That is not to say that the sector is free of problems. Exports of Italian aerospace products declined in absolute terms last year to L2,400bn (£1.04bn) from L2,500bn in 1984. A boom in exports which took sales from L1,550bn in 1981 to L2,300bn in 1983 has peaked. But the sector still has a healthy trade surplus (L1,660bn in 1985), and the industry's total turnover rose 15 per cent to L4,500bn last year.

But the Agusta group still has serious internal difficulties, and the question of whether the two major groups should merge remains unresolved.

Neither group is big by comparison with the aerospace companies of Britain and France. Last year Aeritalia had total consolidated sales of L1,377bn, of which it is estimated that L900bn came from the defence sector. The Agusta group had sales of L1,125bn, of which about L900bn came from defence. Italy's third aerospace company, Aermacchi, had sales of L240bn in 1985, all of which can roughly be attributed to defence.

Aeritalia, which is part of the state-owned IRI-Finmeccanica group, was formed in 1969 out of a merger of the Fiat group's airframe operations with the existing state-owned aerospace company based in Naples.

In 1976 Fiat pulled out completely. Both branches of the company had a history of building successful aircraft, but with the ever-rising cost of developing sophisticated aircraft there was a question of how far Italy would go.

This is why Aeritalia's 15 per cent participation in the Panavia project to build the Tornado — the most important defence project—is so significant. It would have been quite possible for Italy to have stayed out of the Tornado project, either as a customer or a supplier, and to have bought US aircraft instead, perhaps manufacturing them under licence.

In the Tornado project, Aeritalia designs and builds the wings of the aircraft and constructs the 100 Tornados ordered by the Italian air force. Thus it gains priceless knowhow and experience.

Thanks to that, Aeritalia should obtain a larger share of the European Fighter Aircraft (EFA) project, now being defined, which is to be built by the Panavia partners plus Spain. The Italian company could also apply its newly-acquired knownow to the AMX propject for a light fighter and ground-attack aircarft which it is building in partnership with Aermacchi. The Brazilian aerospace company Embraer has a 30 per cent stake in the project, and a production line in Brazil.

The AMX blends advanced technology with well-tried equipment: its avionics are virtually state-of-the-art, while the engines are the tried and tested Rolls-Royce Spey.

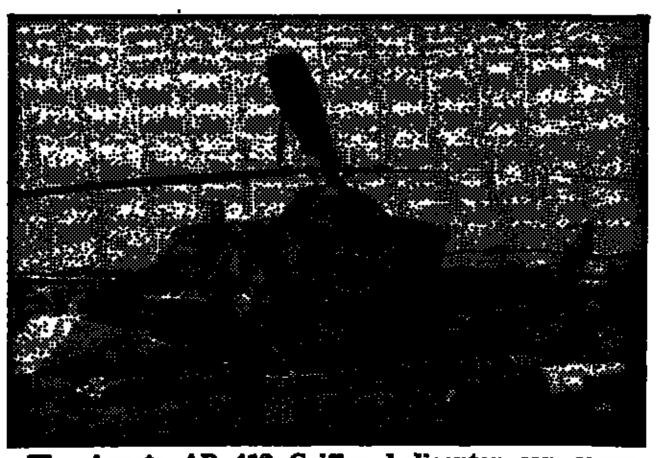
Both Italy and Brazil believe that the AMX is suitable not just for their own air forces but for those of developing countries. But so far no orders have been won for it, apart from the 270 aircraft ordered by the Italian and Brazilian air forces. The first AMX, whose prototype flew in 1984, is due for delivery in 1988. In Italy it will replace the air force's F104G and G-91.

Aeritalia also builds the G222, a twin-turboprop medium transport aircraft for military use. It can carry 53 troops or transport cargo and perform a wide range of military roles. But the G222 has not won major export orders, though Aeritalia sold 20 to Libya in a re-engined version equipped with Rolls-Royce, rather than General Electric, engines, the latter being embargoed by the US government.

Aeritalia, which also has a substantial civil division, as well as subsidiaries operating in space-research and manufacturing and in aero-engines (it recently took control of Alfa Avio, the aero-engine subsidiary of Alfa Romeo), last year made record profits of L28.2bn on sales of L1,377bn.

In a privatisation move that reflected confidence in the company's performance, 16 per cent of Aeritalia's capital was sold to the public on the Milan stock exchange this year, raising L190bn.

The story of Agusta is also one of a company acquiring technology from abroad and gradually developing its own. For years it manufactured under licence helicopters designed by the US companies Bell, Sikorsky and Boeing, and was often highly successful in selling them abroad. Its first helicopter to be designed largely in-house was the Agusta A 109 general purpose aircraft.



The Agusta AB 412 Griffon helicopter can carry 14 equipped troops or various weapon loads

Agusta decided to follow up the success of the A 109 by taking a highly ambitious step: it designed a light anti-tank attack helicopter, the A 129 Mongoose, which is the most advanced of its kind. But it embarked on the A 129 without signing up a partner in either Britain, France or West Germany. What was more, France and West Germany decided to embark on their own project for an attack helicopter, the PAH 2. Potential markets for the A 129 in major Nato countries were dwindling.

The uncertain future of the A 129, on whose development Agusta spent L700bn, combined with the collapse of world helicopter markets to push Agusta into serious crisis in 1983-84. The group, which was controlled until 1973 by the Agusta family, became ever more dependent on the state, and is now 97 per cent owned by the state industrial holding company EFIM.

However, in 1985 Britain decided to embark on a joint feasibility study with Agusta on a possible mark II version of the A129, which would be acquired by the British Army and built jointly by Agusta and Westland of the UK.

Westland and Agusta are already collaborating on the EH 101, a large naval and utility helicopter designed originally for the British and Italian navies. The EH 101's development costs already amount to £650m, but there are only 90 firm orders so far.

It was partly concern over the future of the A129 that spurred Agusta to participate last winter with Aerospatiale, of France, and Messerschmidt Bolkow Blohm, of West Germany, in the European consortium to rescue Westland and prevent it falling under the control of Sikorsky. Yet, at an early stage in the formation of the European consortium, the governments involved decided in principle to build an attack helicopter based not on the A129 but on the PAH 2, the Franco-German aircraft which is even now only at the drawing-board stage.

Agusta's participation in the consortium, a move which never won the full support of the Italian cabinet, becomes in retrospect difficult to understand, in the light of this decision so contrary to Agusta's interests. Agusta also turned down invitations from Fiat to join it and Sikorsky in the rival and ultimately successful consortium. The explanation for this seems to lie in the political rivalries that infest the Italian aerospace industry.

But, since the failure of its bid for Westland, things have gone a little better for Agusta. The mark II version of the A129 seems to be taking shape. Four countries—Britain, Italy, the Netherlands and Spain—are expected shortly to agree on an initial feasibility study for an aircraft to be called Tonal (after an Aztec war god) which would be produced in three versions: scout, anti-tank and air-to-air defence.

It is obvious to outside observers that the structure of the Italian state aerospace sector is flawed. It makes little sense to have two groups of similar size, each of which has under its wing a maker of light tactical aircraft and trainers—Aermacchi, an associate of Aeritalia, and Siai Marchetti, a subsidiary of Agusta. Indeed, a parliamentary committee has recommended that Agusta merge with Aeritalia.

But change seems unlikely. Aeritalia, controlled by IRI, is in the Christian Democrat sphere of influence; Agusta, under EFIM, comes under the Socialists and Social Democrats. The latter parties would be extremely loth to relinquish control. For the same reason, an alternative idea, mooted last year by EFIM, that the private sector group Fiat should take effective control of Agusta, also looks politically difficult.

Italy's third airframe maker, Aermacchi, requires special mention. It has a successful line in building jet-trainers and light attack aircraft. Its MB-326, MB-336 and MB-339 light attack aircraft and trainers are in service both with the Italian air force and with services abroad, notably the Argentinian armed forces which used the MB-336 to sink a British frigate in the Falklands war of 1982. The AMX, mentioned above, is an Aermacchi joint venture.

James Buxton

Warship-building

Sailing into a lean period

THE ELEGANT lines of the aircraft carrier Garibaldi probably caught the eye of many visitors to Italy's naval equipment show, held in Genoa during the second week of June.

Lying not far off-shore from the city's exhibition centre, the vessel was an eloquent reminder of the capability of the country's military shipbuilding industry.

Although the Garibaldi is officially described as an aircraft carrying cruiser, with her full load displacement of 13,400 tonnes and complement of 105 officers and 720 men she effectively ranks as a light carrier.

The Garibaldi was delivered to the Italian Navy by builders Fincantieri exactly one year ago. She had been ordered in 1980, laid down at the Monfalcone yard near Trieste the following year, and launched in 1983. Italy's state-owned shipbuilders are very pleased with the vessel, not only with the speedy building, but also the ship's performance in trials and service. According to a senior officer of a Nato navy, the lack of vibration at all speeds is a very impressive feature.

Flagship of the fleet, the Garibaldi also flies the flag for Fincantieri's military construction division, where there are hopes that a second ship to the same design will be ordered by the Italian Ministry of Defence. Fincantieri's chairman, Enrico Bocchini, believes that the experience acquired in building the Garibaldi could allow the construction time to be reduced by a year on subsequent vessels.

The cost of the ship itself is unlikely to be an obstacle. The Garibaldi was originally priced at L130bn, and with inflation adjustments reached a delivery price of L270bn. However, the ship is merely a platform for weapon systems, and this is an area in which costs mount rapidly. It seems improbable that a sister-ship will be ordered before a decision is taken on the purchase and embarkation of fixed-wing Sea Harriers, to complement the existing rotary-wing anti-submarine squadrons.

If the Garibaldi is to avoid being a one-off class, then further orders will have come from Italy's own navy. Mr Bocchini says that the possibility of attracting foreign buyers for aircraft carriers is slender.

The need for high investment in weapons systems, together with the requirement for substantial logistics support, means that modern aircraft carriers can find a place only in the fleets of large or advanced countries. And generally these have their own shipbuilding capacity and would not need to purchase in Italy.

Major Western European arms exporters and their markets per cent 1978 - 1982

	Europe	North America	Africa	Middle East	Asia Oceania	Latin America
France	6.4	—	23.1	48.2	8.1	14.2
West Germany	24.5	6.2	28.2	24.8	9.4	6.9
Italy	6.1	0.2	35.4	30.6	5.4	22.3
UK	9.6	5.7	7.2	55.4	13.5	8.6
Average of the four countries	10.4	2.6	21.2	44.1	9.3	12.4

Source: Based on US-ACDA "World Military Expenditures and Arms Transfers 1972-82," April 1984.

While prospects are extremely low for the sale abroad of large naval ships, neither are they bright for Fincantieri's smaller vessels. Indeed, apart from the large order for six corvettes and four frigates from Iraq, foreign work is completely absent from Fincantieri's order book. Moreover, work on the Iraqi order, signed in February 1980 and worth about $1,700m, is virtually completed, with the ships in advanced states and awaiting delivery. Most of the monies due have been received, delivery being blocked by the arms embargo.

Six fat years of foreign deliveries, which started in 1978 and, leaving aside the Iraqi ships, finished two years ago, have now given way to a lean period. With nothing building for export markets, Fincantieri is left with little except to look back on an exceptionally good period when it built: four frigates for Peru, six frigates for Venezuela, six corvettes for Ecuador, four corvettes for Libya and three corvettes and three fast patrol boats for Thailand.

The specialist builder of fibreglass minehunters, Intermarine, also managed to benefit from the re-equipment boom in foreign navies during the late 1970s. Its yard, in Sarzana at the northern end of the Tuscan riviera, won orders for four minehunters from Malaysia and two from Nigeria, as well as for four from the Italian Navy. However, although the company is currently discussing possible contracts with six countries, it has been badly hit by an absence of firm orders.

With the delivery last October of eight of the 10 vessels ordered at the end of the 1970s and in the early 1980s, Intermarine ran into a work vacuum and has laid-off 250 of its 480 workforce.

Moreover, it is now examining ways of diversifying out of the defence field. With this objective, it has established a joint venture with the Montedison chemicals company. If Mr Bocchini is correct, then Intermarine is probably wise to be looking at new areas.

"The pause in military shipbuilding for foreign markets is certainly not unique to Italy. No European shipbuilders have signed military export contracts in the past three years," claimed Mr Bocchini.

Fincantieri's chairman explained that the significant change which has occurred during the mid-1980s is due to two basic factors. First, with fleet rebuilding now completed, the market can be described as saturated. Second, when minor navies now consider new orders they examine very carefully the possibilities of building at home. Mr Bocchini also mentioned the adverse effect of the low value of the dollar and the massive decline in the revenues of OPEC countries.

With export markets now offering little other than refitting, or the construction of service ships such as coastguard vessels, both of which Mr Bocchini describes as being poor business with low added value, Fincantieri's work-in-hand comes entirely from Italy's own navy. Surprisingly, this is sufficient to keep the yards working to capacity.

Fincantieri's military construction division employs a total of 5,000 people spread between three yards.

The Italian Navy's own building programme is the reason why Fincantieri's military construction division has not run into difficulties with the sharp cessation of foreign orders. Indeed, the capacity of the division was determined solely on the basis of Italian needs, a strategic decision taken at the beginning of the 1970s. This means that, as long as the Italian Navy re-equips according to usual patterns, then the three yards will be working to capacity.

"It has turned out to be a wise strategy," remarked Mr Bocchini. He explained that the enormous boom in orders which his company enjoyed at the end of the last decade was met by turning to the excess capacity in Fincantieri's civil shipyards.

The yards, at Ancona, on the Adriatic and Mestre, near Venice, were both called on to deal with the orders from Iraq, Venezuela, Thailand and Ecuador, while the yard in Genoa did refitting work on Venezuelan and Libyan frigates.

By defining its optimum dimensions 15 years ago, the military construction division has been able to avoid laying-off labour by using the state-subsidised lay-off system. And, notwithstanding a huge drop in annual turnover, it has remained profitable. "The division had annual turnover of approximately L1,200bn between 1980 and 1982. Last year it fell to about half this level, yet the division was still making profits," said Mr Bocchini.

If an unlikely revival of foreign orders were to occur, then Fincantieri could double its present output to meet the demand. Italy's naval shipbuilders believe that they can offer ships to suit a range of requirements. The Lupo class frigate which went into service in 1977 was bought by Venezuela, Peru and Iraq. At 2,500 tonnes full displacement, the ship is a multi-purpose frigate with sophisticated weapon systems able to carry out a variety of missions. Surface-to-surface fire power is provided by Otomat missiles for which there are eight launchers, while the vessel has surface-to-air capability with Albatros.

The Sparviero fast attack craft could perhaps find a place in smaller navies. This 60 tonnes vessel, with a complement of 10, was on display at the Genoa equipment show and drew considerable interest, not least for its long, low uncluttered hull form.

Offered in two versions, anti-aircraft and missile gunboat, the Sparviero still belongs to Fincantieri who constructed it in a private venture collaboration with Selenia Elsag systems.

But it seems that, for the foreseeable future, the state shipbuilder will be relying on the Italian Navy to ensure that it stays afloat. Fincantieri's chairman has few doubts that the flow of orders will continue. "Events in the south Atlantic and, more recently, in the Mediterranean have underlined the importance of having an efficient fleet. The warship's role as a means of defence and to protect maritime interests is increasingly being recognised," said Mr Bocchini.

David Lane

Electronics

Equipped for many tasks

ITALIAN WARSHIPS seem to bristle with weapons, from soft-killing decoys and electronic counter-measures to hard-killing guns and missiles.

Aerials, antennae, mountings and launchers leave no doubts about role, and suggest considerable fighting capability. The reason for the heavy armament of the Italian Navy's warships is the wide range of tasks which they may be asked to undertake, and the threats which they would probably have to face in a Mediterranean conflict.

The specification of the Maestrale-class frigates, which entered service four years ago, includes convoy defence against submarines, air and surface attack, interdiction of seaways and coastal bombardment.

Combat systems installed in these frigates are designed to face threats from submarines, sea-skimming or diving missiles, surface ships and aircraft fitted with missiles of every type. It is hardly surprising that these frigates are described as multi-purpose.

A complex set of electronics systems supports four Otomat surface-to-surface missile launchers, an eight-cell Albatros surface-to-air missile launcher, four torpedo launchers, two rocket launchers, a single 127/54 Oto Melara gun and two twin 40/70 Breda guns, with which the Maestrale-class frigates are armed. The ships are equipped with an overall command and control system, as well as normal navigation radar and aids.

Like the weapons, the electronics which are packed into the Maestrale are of Italian design and production. Defence is a sector where Italy's electronics industry has generally reached an advanced level of autonomy and technological sophistication.

Indeed, the state itself is heavily involved through the Selenia-Elsag subsidiaries of the holding corporation IRI. A considerable amount of electronics installed in the Maestrale frigates is supplied by Elsag Elettronica San Giorgio (the fire control systems) and by Elsag's parent company Selenia (search radar and command and control systems).

Last year 51 per cent of Selenia's turnover of L698bn was derived from defence systems, compared with 47 per cent of L597bn in 1984. A similar proportion of Elsag's sales of L207bn last year came from systems and equipment in the defence sector.

Though the naval side of its defence business is currently feeling the effects of low shipbuilding activity and tough competition, Selenia says that this is compensated by good sales and prospects for land-based systems. The company mentions its three-dimensional S-band radar for air surveillance, and the ground-based air defence system Spada, as the strong weapons in its commercial armoury.

Spada provides a clear example of product evolution in the defence sector. It employs the Aspide anti-aircraft missile, which operates on a semi-active guidance system over a range of about 15 km. The missile's original role was ship-borne, in the Albatros system, and dates back a decade. The first operational land-based Spada batteries were delivered two years ago.

Although Selenia is studying a new missile (the Idra) with the aim of replacing Aspide during the 1990's, it is still developing the current missile's potential. The first trial of Aspide in an air-to-air role took place last year. Selenia says that five launches from Italian Air Force F104's have all been successful.

During Aspide's ten-year life there have been various modifications leading to improved performance, the most important being changes to the missile's wings.

Selenia's engineers also emphasise the evolution of the missile in its multi-role capacity. A multi-role weapon permits substantial logistics savings. Though export contracts for Spada have yet to be signed, the system has a selling edge in other countries whose navies are already equipped with Albatros.

Another field where Selenia sees good opportunities for exports, as well as for sales to its own Ministry of Defence, is electronic counter-measures. The company says it has dedicated considerable research effort in this field, particularly in the area of recognition systems.

However, Italy's leader in electronic counter-measures (ECM) continues to be Elettronica, the Rome-based company in which Britain's Plessey has a 35 per cent interest. Unlike Selenia, virtually none of its sales (nearly L190bn last year, compared with L130bn in 1982) goes to the civil sector. A company spokesman estimates that sales were split. 20 per cent to army buyers, 40 per cent to air force, and 40 per cent to navy (the Maestrale-class is equipped with an Elettronica ECM/ESM system).

"The essence of ECM is to keep ahead of developments in radar, anticipating what radar systems will be doing and designing new jammers to counter them," said the spokesman. The company's pod-contained airborne deception jammer and warning system is designed to protect attack and fighter aircraft by operating against the radar emission of anti-aircraft systems.

Elettronica believes that self-protection ECM is now a necessity for all types of aircraft and in all combat environments. The company's ELT 555 system, contained in a pod, is mounted externally under wing and can fit a wide range of aircraft. These include the F5 Tiger, F4 Phantom, Jaguar and Hawk, as well as the Russian SU7 and MiG 21.

The system is capable of operating against radar emission in very dense electromagnetic environments. Fast reaction, multiple target-selection and a variety of deception techniques are aimed at putting anti-aircraft missiles off-target.

That the value of self-protection ECM is appreciated in export markets is visible in Elettronica's figures, though interest appears to be declining. Sales abroad were 68 per cent of total turnover last year, compared with 77 per cent in 1984, and 87 per cent in 1983.

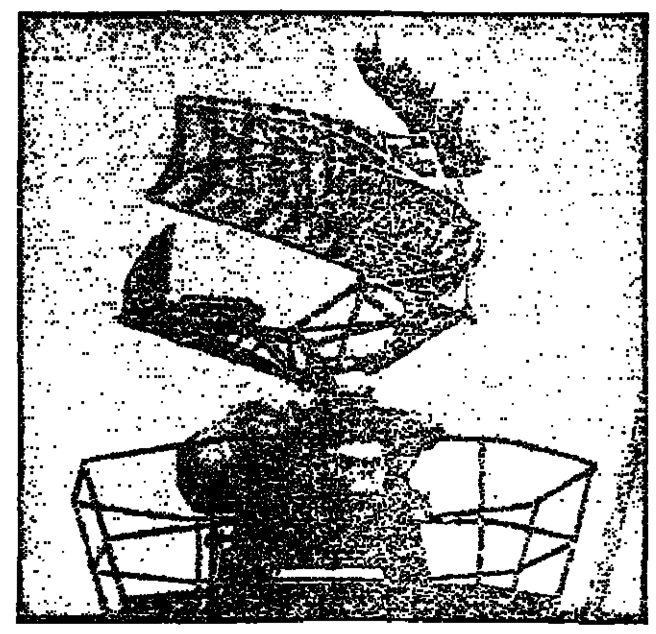
Exports are a subject about which the company reveals little. Client countries do not want publicity for the ECM kit with which their air forces and fleets have been equipped.

There is an equally reserved line on product development. The company says that it is continuously improving existing systems. While there are new and interesting systems under development, the rules of secrecy prevent their being revealed. It has been suggested, however, that lack of new products might be a reason for Elettronica's disappointing results.

The company's consolidated profit and loss account showed a deficit of 1.6bn last year, against a surplus of L2.1bn in 1984. Moreover, the company has been forced to cut 300 jobs from its workforce of 2,100, an operation which should be completed by the end of July.

The future for Elettronica looks somewhat uncertain. There has been talk about diversification into bio-medical engineering, but the spokesman emphasised that the company is in the electronic warfare business. This is what it does well and where it sees its future. It is widely felt that the Plessey link has brought little benefits as yet, though the British company has probably had enough to think about at home.

Perhaps Plessey's shareholding in Elettronica (it has an option to increase its stake to 49 per cent during the next three years) has not yielded the expected results. But inter-company collaboration in various forms is an approach which is likely to be increasingly adopted.



RAN 10 S surveillance radar on board a Maestrale class frigate

Selenia—Leader in Italy's defence electronics (billion lire)

	1981	1982	1983	1984	1985
Total sales	304	391	479	597	698
Italy	198	294	355	386	410
Export	106	97	124	211	288
Defence	102	160	214	282	350
Civil	202	231	265	315	348

Source: Selenia.

The Melara Club, grouping ten suppliers from different fields, is the industry's way of putting together complete packages for overseas defence customers. Five members are involved in manufacturing combat systems. Selenia-Elsag and Elettronica are joined by the electronics company Elmer, state-controlled Breda and Oto Melara which make guns and missiles, and by the torpedo manufacturer Whitehead.

Whitehead, which is owned by carmaker Fiat, is engaged in another venture with Elsag. The Welse underwater system consortium has been established with the aim of improving the country's underwater warfare capability, a field which has been neglected and in which Italy is thought to be backward.

Submarine activity in the Mediterranean is increasing, and Italy's means of keeping it under surveillance are probably inadequate. The Italian Navy lacks its own detection system suitable for the special characteristics of the waters where it operates, and relies on US Raytheon sonar, built under licence by Elsag.

Attempts by Selenia-Elsag to obtain international collaboration with French and British concerns have not come to fruition. This is, however, a delicate area, especially for navies that operate nuclear submarines.

Selenia is hoping for better fortune with its multi-functional phased array radar. It recently made a joint presentation of the system with the Marconi company to the Royal Navy, whose requirement is similar to that of the Italian Navy. System trials are expected to start at the beginning of the 1990s, with first installations towards the middle of the decade.

Selenia says this is its biggest project in the naval field. Substantial investment is needed, and this explains the search for a suitable partner. In the early 1970s Selenia worked with Ferranti on the 912 tracker radar which was installed in all the Royal Navy's Type-21 Amazon-class frigates, so a joint British-Italian solution would not be novel.

Officials discreetly mention that Britain and Italy tend to have more in common with each other and work better together than with either of the two other major European allies.

There is, however, an American factor. British connections with the US on underwater warfare are possibly obstacles to Italo-British collaboration in this area. It could be that special understanding between Britain and the US will prevent a European, Italo-British, solution for the multi-function radar.

David Lane

'On land, sea and in air'

Last year Fiat increased its sales in the defence field by 12 per cent, says James Buxton, in this profile of the company's defence sector.

THE EXPANSION of Fiat in the defence sector in the past few years is a very important development for the Italian arms industry. The commitment and the international experience of Fiat should bring benefits to the entire sector.

Since 1983 Fiat has: become the controlling shareholder of Snia BPD, Italy's principal maker of munitions and rocket fuel; acquired the main Italian makers of mines; made a convincing attempt to win contracts under the strategic defence initiative programme; and participated in the ultimately successful Sikorsky rescue bid for Westland, the British helicopter-maker.

Mr Cesare Romiti, Fiat's managing director, argues that there is nothing new about Fiat's interest in defence. Fiat, he points out, was a major producer of armaments in both world wars, and has maintained its interest in many sectors of defence in peacetime. "We used to have the advertising slogan 'Fiat on land, sea and in the air,'" he said in an interview earlier this year.

Fiat used, in particular, to be one of the country's leading aircraft companies, making a range of aircraft designated "G." after their designer Gabrielli.

Mr Romiti explains Fiat's interest in defence in two ways. In part, it fits in with the group's strategy of strengthening sectors other than cars. In part, it enables it to gain access to sophisticated technology which can be adapted to other uses. "This is one of the ways in which technology advances most quickly," he says.

Last year, it has been calculated, Fiat had sales totalling L950bn in the defence field, an increase of 12 per cent compared with 1984. This put the group in second place in the entire Italian defence industry, a little way behind the state-owned Breda group with owns Oto Melara. But the calculation does not include Snia BPD, whose defence sales totalled L630bn, and in which Fiat has a stake which is soon to go up from 27 per cent to nearly 40 per cent.

Ever since the Snia acquisition, which closely accompanied the purchase by Fiat of Misar and Valsella, two companies which have a thriving business in making mines and other explosive devices, Mr Romiti has led a campaign for the rationalisation of the Italian defence industry. He has publicly urged companies to co-operate more closely and eliminate needless duplication.

Cesare Romiti: "This is one of the ways in which technology advances most quickly."

Fiat itself has helped the process, both through its acquisitions and its collaboration with other companies. One of its major offshoots in the defence field is the branch of Iveco, based at Bolzano in the Alto Adige, which makes military vehicles. In 1984 it agreed with Oto Melara, of the state sector, to co-ordinate in building a new battle tank for the 1990s, an ambitious project by which the two companies hope to edge their way into future European tank collaboration ventures. There is also a joint venture to build a heavy eight-wheel armoured car mounting a 105 mm gun.

When Fiat pulled out of Aeritalia in 1976, the rump of Fiat Aviazione continued to make aero-engines, as well as turbines for warships and other mechanical equipment. Fiat Aviazione has gradually pulled itself up from manufacturing engines under licence—for example the earlier Rolls-Royce jet engines—into being a partner with the major aero-engine manufacturers in joint ventures on a wide range of engines. The company, whose sales last year jumped 24 per cent to L462bn, has an ingenious network of alliances.

In 1985, the company says, some 44 per cent of Fiat Aviazione's sales were to the military sector, three quarters of it accounted for by the Fiat participation in the Turbo Union RB 199 engine for the Tornado, in which Fiat is in partnership with Rolls-Royce and MTU of West Germany.

Fiat Aviazione manufactures, as a junior partner with General Electric, the T700 engine which is destined to be the main engine for most military helicopters in the US. Fiat is developing a more powerful version of this engine for the Westland-Agusta EH 101 helicopter.

For 30 years Fiat Aviazione has supplied the accessory gearboxes for all the helicopters built by Aerospatiale of France. This complex piece of machinery, which enables the rotors to power other applications in the helicopter, accounts for 14-15 per cent of the value of every Aerospatiale helicopter flying.

When, last winter, Fiat joined United Technologies in bidding to rescue Westland, the British helicopter-maker, the expansion of the helicopter gearbox business was presented as one of the main reasons for Fiat's involvement. Yet this was almost certainly a very minor part of Fiat's thinking. The gearbox business accounts for only about 2 per cent of Fiat Aviazione's total sales.

A rather more plausible reason, advanced on the top floor of the Fiat headquarters in Turin, was that Fiat wanted to help the creation of a rival helicopter-making alliance in Europe to match the dominance of Aerospatiale in this sector.

But probably the principal reason for Fiat's involvement was to collaborate as closely as possible with United Technologies, a major US defence contractor which has Mr Gianni Agnelli, the Fiat chairman, on its European advisory board. "We want to be connected with top-quality US corporations and with the US defence department," said a senior official at Fiat during the Westland affair.

The Westland affair brought to light previously unknown contacts between Fiat and Agusta. EFIM, Agusta's parent company, had sounded out Fiat on the possibility of its taking a stake in the helicopter company, an idea about which Fiat had reservations.

After Fiat had joined United Technologies in bidding for Westland, the Turin-based company invited Agusta to join it on its side of the fence. The offer, which was repeated, was turned down; Fiat believes this was for political reasons.

Fiat undoubtedly saw the Westland bid, which was ultimately successful, as a way of strengthening its chances of obtaining SDI contracts. Preliminary examinations by the US of what Italy had to offer in the field of SDI showed that Fiat had at least two promising projects, though the details have not been published. But, until early June, the possibility of Fiat winning SDI contracts was held up by the refusal of the Italian government to negotiate a government-to-government agreement on star wars.

But now that the Italian government has finally decided to negotiate, Fiat has come under a cloud because of US disapproval of the 15 per cent stake held in the company by the Libyan government. Thanks to this, a contract to sell Fiatallis earthmoving equipment has been suspended. So far, Fiat has been unable to persuade the Libyan Arab Foreign Investment Company to sell its stake and remove this obstacle to the company's defence industry ambitions.

Armed Forces

Early fruits of a rising budget

Defence spending by major Western European countries: 1983

	Defence spending ($m)	Spending on defence equipment ($m)	Defence equipment spending per serviceman ($m)
France	21.381	3.850†	7.820
Germany	22.127	3.828	7.733
Italy	9.788	1.458	3.907
UK	24.472	6.534	20.380

† WEU estimate.

Source: NATO and IISS, "The Military Balance 1984-85," London 1984.

THE CONSTITUTION of the Italian republic specifically condemns war as a means of settling international disputes.

Yet, at the beginning of June, when Italy celebrated the 40th anniversary of the founding of the republic, probably the most striking event was the military parade in the heart of Rome.

Armoured vehicles and mobile guided missiles thundered along Via dei Fori Imperiali. Jets, transport aircraft and helicopters roared ovehead. Mounted Carabinieri trotted past the presidential saluting box, the little dog that is their mascot scampering along beside them. It was the biggest and most impressive military parade Italy has put on for years.

It was a sign that the Italian armed forces now enjoy much greater public acceptance than they did, for example, during the 1970s. They are now the subject of far more public attention, and of regular learned articles in the newspapers. But how much have they really changed?

Post-war Italy has never wanted to be a militarily powerful country. The armed forces were resurrected after the disasters of the second world war in a deliberately fettered way. Defence spending was kept on a tight rein and manpower was dominated, at least in the army, by conscripts, representing all parts of the Italian political *spectrum*.

Though Italy has an important role on Nato's southern flank, the ultimate defence of the country has, in effect, been entrusted to the US, through its nuclear umbrella and the Sixth Fleet in the Mediterranean.

Thus, at the end of the 1970s, Italy was spending less than two per cent of gross domestic product on defence. Even by 1984 the proportion had only risen to 2.3 per cent of GDP, compared with 5 per cent for Britain and 3 per cent for France.

The armed forces are relatively strong in terms of manpower, but some 205,000 out of the 270,000 men in the army are conscripts doing one year's military service, often in very uninspiring conditions. Yet 44 per cent of all defence spending goes on manpower, squeezing the amount left to be spent on equipment.

But important changes have taken place over the past few years. Expenditure has risen in real terms, and now accounts for 4 per cent of all government spending, against 3.85 per cent in 1980. In 1985 the defence budget amounted to L16,300m, a jump of 15 per cent compared with 1984, which is about double the rise that year in the cost of living index.

As long ago as 1975 a multi-year re-equipment programme got under way to replace some of the ageing ships, aircraft, vehicles and weapons in the forces. The armed forces are now enjoying the early fruits of this programme, and more projects are in the pipeline. These include: the AMX tactical fighter, the EH 101 naval helicopter, the Catrin field transmission system, a project for a new Italian tank to replace the M 47s in service, a plan for a new heavy armoured vehicle, and the A 129 anti-tank helicopter. Nato statistics suggest that Italian spending on defence equipment doubled in real terms over the 1975-85 period.

The revival of the confidence and capabilities of the armed forces coincided, at the beginning of the 1980s, with Italy's taking a more active role than in the past in foreign policy. In 1982 Italy sent contingents to the US-sponsored peace force in Sinai. Later that year it despatched a large peace-keeping force to Lebanon, where it remained until early 1984.

The Lebanon operation was regarded as a considerable success, both in political and military terms. The Italians succeeded in keeping the peace in their zone with virtually no casualties. The army showed that, even with its heavy weighting of conscripts, it could function efficiently and perform bravely. There was little undue interference from home.

The Lebanon experience demonstrated to many Italians that the use of military force need not necessarily be unpleasant and could pay political dividends abroad. It was also a reminder that the Mediterranean was becoming an increasingly dangerous place, with threats to stability not just at the eastern end but from the well-equipped forces of Libya not far from the southern tip of Italy.

The increased preoccupation with the Mediterranean has brought about a shift in the focus of the armed forces' attention from Italy's north-eastern front, the most likely place for an invasion by the forces of the Warsaw pact, to the southern end of the peninsula, where seaborne attack or pinprick raids by guerrillas could be feared.

Just such a pinprick attack occurred last April when, following the US air raid on Tripoli, Col Muammer Gaddafi of Libya fired two missiles at the island of Lampedusa, south of Sicily. Both exploded in the sea, short of their target—a US coast guard station—but the Italian forces were evidently taken by surprise.

Various forms of retaliation were considered, but in the end the government settled for a stern note of protest. The incident did, however, highlight the need for a national security council to take quick decisions on military matters in a crisis.

In response to the need to have military units able to go into action at short notice, Mr *Giovanni Spadolini, the Minister* of Defence since 1983, has presided over the creation of a rapid intervention force of soldiers whose units are supposed to be ready to move within 16 hours and to be in action within 24 hours in situations similar to Lebanon, or in the Nato area.

He thus went some way to heeding the advice of senior officers, such as retired Gen Luigi Caligaris, that at least some units of the armed forces must be given the training, equipment and transport to enable them to move into action rapidly, and to constitute a core of high-quality servicemen accustomed to inter-force co-operation who would serve as an example to the rest. The critics, however, claim that the force exists little more than on paper, since it has neither the transport nor the ready co-operation of the other services to make it effective.

In fact, despite the presence of a bustling minister at the top, who last year published a well-presented white paper, many experts on defence still lament the inadequacies of the Italian armed forces and say that the experience of Lebanon has been squandered.

The basic complaint is that the country's politicians still show very little interest in defence. They fail to appreciate the possible uses of the armed forces, and the ways in which Italy could employ them to project itself better on the international stage. They also refuse to make basic reforms which are necessary to ensure even a minimal improvement in efficiency.

Politicians are particularly blamed for the fact that a long-overdue bill to reform the defence command structure is still lying unexamined in parliament, almost a year after it was presented by Mr Spadolini. Under the present command structure, the chief of staff of the armed forces, who is, in rotation, a member of each of the three services, is only on the same level as the chiefs of staff of the three services themselves. This means that the minister has to deal with all the different chiefs of staff instead of just one of them.

Furthermore, the secretary general of the ministry of defence, who is the national armaments director and responsible for the forces' equipment, does not have full control over the top officials technically under him, each of whom has his own direct links with both the minister and with different service chiefs. As a result, no one, whether the minister or the senior officers and officials, is fully in charge.

The consequence is that the individual forces are, in effect, under what is eupemistically called "self-management." Each arm of the services fights ruthlessly for its own interests, in terms of both operations and equipment, and is extremely loth to co-operate with other arms. There is no effective arbiter.

A good example of this is the argument raging over the future of Italy's largest warship, the 13,000-tonne Guiseppe Garibaldi which came into service last year. The Garibaldi is a small aircraft carrier, rather smaller than the Royal Navy's HMS Invincible. But, because of a law dating back to the 1920s, she may not carry fixed-wing aircraft such as the British Aerospace Sea Harrier, and is confined to operating helicopters.

The air force has, for several years, been campaigning to discourage parliament from amending the law and thus enable the navy to take over a small portion of the air defence of the country. Hardly anyone seems to examine the problem from the point of view of Italy's overal defence needs.

Mr Spadolini has, in fact, presented to parliament a bill that would abolish the aviation restrictions on the navy. But it has not yet been approved.

His other bill, to reform the defence command structure, would create just two posts, whose holders would report directly to him: the chief of staff of the armed forces, in charge of operations; and the secretary general of defence, in charge of supply. If this reform were approved, many observers believe, both the operations and the procurement sides of the armed forces would benefit enormously.

The present system, it is acknowledged, even by senior serving officers, favours officers who are good at internal politics, men better at sitting behind a desk than at commanding and motivating men.

Gen Caligaris, who, as a serving officer until 1982 found his plans to upgrade the forces' operational efficiency and keenness constantly thwarted, claimed recently that the armed forces were like the papal curia, only with epaulettes instead of cassocks.

With good leadership, he believes, the Italian serviceman, poorly paid as he is, becomes as effective and well-motivated as those of any other country. But the present system does not encourage him.

James Buxton

BUILDING CONTRACTS

Reading Station project

Prudential Portfolio Managers has awarded a £34m contract to TARMAC CONSTRUCTION to build the Apex Plaza in Reading. The 200,000 sq ft office scheme, forms an integral part of the £50m redevelopment of Reading Station, being jointly undertaken by British Rail and Prudential.

The overall scheme includes a new main-line station for Reading, a 1,600 space multi-storey car park, retail warehousing and mechanised letter sorting office for the Post Office. Work has already started and the building is expected to be finished by summer 1988.

Apex Plaza will comprise four seven-storey buildings, surrounding a light and spacious atrium. The buildings have been designed to inter-link so that they can be occupied as a whole or individually.

The central atrium will incorporate water features, four wall climber lifts — plus another eight high speed lifts — and extensive interior landscaping. Air conditioning will be provided throughout the building by a VAV modular system, enabling individual control on each floor.

Lower elevations of the building will be clad in grey-pink granite and above street level, the offices will feature alternating bands of silver-pink aluminium panels and blue glazing — designed to blend with the Reading station development itself.

A covered walkway will link the Apex Plaza at concourse level with the station. The Plaza building incorporates basement parking for 150 cars and a further 350 spaces are exclusively reserved within the station's own multi-storey car park.

Wiltshier wins £21m orders

GROUP has orders totalling over £21m. Contracts cover all aspects of the Wiltshier business throughout their divisions in the UK as well as the major and growth market sectors. In London, Wiltshier Construction gained a major medical research refurbishment and construction project on behalf of the Cardio-thoracic Institute. Another series of projects are in the retail area, including a development of a shopping arcade for Maidstone by Wiltshier Canterbury and the construction of a retail supermarket in Peterlee town centre by Wiltshier Northern.

On the shopfitting front Wiltshier Interiors will be supplying and fixing a stainless steel shopfront to a major retail supermarket in Ashford, Kent, as well as a similar project in Guildford. Remedial work will also be undertaken for the Hilton Hotel in London which suffered from a recent fire.

Wiltshier Southern is involved in the building of a 28-bedroom block extension and a major leisure complex for a large hotel in Cobham, Surrey. Wiltshier Tonbridge has also received orders for three pub refurbishments in Kent for Medway Inns. Wiltshier Canterbury is involved in the Phase III development of offices for the Dover District Council.

*

WALTER LAWRENCE has been appointed design and build contractors for the construction of district offices for British Gas North Thames in south Harrow, Middlesex. The £1.03m contract will include the design and construction of the 19,000 sq ft two-storey office building and the provision of fuel dispensing facilities and a car park on the site.

South Wales road link

JOHN LAING CONSTRUCTION (Civil Engineering Division) has won three contracts, the three major civil engineering contracts, together worth nearly £12m. The largest, worth £8.7m, is for a new estuarial river crossing at Loughor in South Wales, which will eventually form part of a much needed direct road link between Swansea and Llanelli. The contract—which runs for 130 weeks—calls for a road bridge of a composite steel and concrete construction, with permanent large diameter bored piles and cofferdams within the estuary. It also includes the construction of approach roads and, when the new bridge is complete, the demolition of an existing bridge. Laing was awarded the contract by West Glamorgan County Council.

In Portsmouth, Laing has started work on a £3.7m contract for Hampshire County Council. The 104-week contract involves the construction of a three-span flyover and pedestrian subway at Rudmore, Portsmouth. Also included in the contract is the construction of reinforced earth retaining walls with associated roadworks and services.

The third contract has been awarded by British Rail Eastern Region, who are carrying out work on behalf of Essex County Council for £1.4m. It involves the construction of the Braintree bridge, a two-span steel and concrete bridge with a composite steel and concrete deck on piled foundations together with adjacent roadworks for the future Braintree by-pass and a ditch diversion. The client will be acting as the consulting engineer during the 63-week construction period.

Manchester Airport order for Balfour Beatty

BALFOUR BEATTY has been awarded six contracts in both the civil engineering and building sectors. At Manchester Airport, Balfour Beatty Construction will undertake a £3.9m contract to construct aircraft stands extending to 69,000 sq metres in pavement quality concrete, 350 mm thick, to be laid by paving train. The scope of work includes earthworks, drainage, apron and high-mast lighting.

Humberside County Council is the client for a £2.8m contract for the reconstruction of 5 km of four-lane motorway in continuously reinforced concrete pavement to be laid by paving train. The work, which includes 2 km of black top construction, commenced in early July for completion in five months.

On the M62 near the Burton-wood Service Area, Balfour Beatty has received an order for the reconstruction of defective areas of the wearing course which will be achieved by overlaying the existing carriageway with flexible material. The £1.1m contract will be completed in 60 days.

Balfour Beatty Building has received three substantial contracts. At Talbot Road, Trafford, Manchester, the company will construct the new headquarters for the North West Electricity Board. The development comprises a reinforced concrete-framed three-storey office block of 9,767 sq metres a steel-framed two-storey sports building of 555 sq metres, a single-storey garage/workshop and a substation/switchroom, together with extensive external works and drainage.

The Territorial Army Volunteer Reserve Association of north-west England and the Isle of Man has awarded a contract to build a training centre at Childwall Valley Road, Liverpool,

City of London offices plan

SIR ROBERT McALPINE & SONS has won a contract worth over £5m for the construction of two office buildings in Leadenhall Street and Mitre Street for Leadenhall Development Co. Work has begun on a six-storey office block with basement, lower ground floor and roof level plant room in Leadenhall Street at the junction with Mitre Street. Construction will be of structural steel frame with steel trough suspended floors with concrete infill. External finish will be granite-faced precast concrete panels and curtain walling

Work will commence shortly on the second office block to be built on an adjoining site in Mitre Street. The four-storey building with lower ground floor and roof level plant room will be of reinforced in-situ concrete frame construction with brick cavity walls on bored piles and reinforced concrete ground beams and slabs.

INSURANCE

Measuring life companies' strength

BY ERIC SHORT

FOR DECADES, life assurance salesmen marketing traditional life and pension contracts have assumed that long-established mutual life companies were financially rock solid.

As such, intermediaries felt there was no need to investigate the financial state of such life companies when recommending their products. The choice of company was usually made on the basis of which company could produce the highest projected maturity value.

The problems of United Kingdom Provident Institution earlier this year, however, have shown that a long-established mutual life company is as capable of running into financial difficulties as a newly-formed, linked-life company.

One lesson from the UK Provident saga was that the Department of Trade and Industry, the insurance industry watchdog, cannot intervene early enough in the affairs of a life company to keep it operating as a going concern and avoid any cutbacks in future benefits.

Intermediaries are now realising that they have to carry out some check on the financial health of those life companies whose products they recommend to clients. Indeed, under the financial services legislation such a check may be obligatory under the conduct of business rules that apply to intermediaries.

However, this is easier said than done, as the British Insurance Brokers' Association—the trade association of registered insurance brokers—has discovered.

Its Life and Pensions Committee has been investigating the methods by which its members could assess the financial strength of life companies from the information they publish.

Not surprisingly, it has run into all sorts of problems.

Basically, intermediaries are looking for some straightforward measure that sums up the financial strength of a life company, such as the level of free reserves—the percentage excess of assets over liabilities in a life company's funds.

The responsibility for monitoring the financial health of a life company rests with its appointed actuary. Under insurance company legislation, appointed actuaries are required to value the assets and liabilities of life and pension funds every year and to comment on the matching between assets and liabilities.

However, providing they can certify that the funds can meet the minimum legal solvency margin, appointed actuaries have considerable freedom to use their professional judgment in making their valuation.

So there is no standard format in the presentation of a life company's valuation results. Each particular valuation will reflect the individual views and judgment of its appointed actuary.

BIBA has approached the Association of British Insurers to investigate the possibility of life companies producing standardised formats for showing their free reserves and other financial statistics.

However, the Life Insurance Council of the ABI, the arm which looks after life assurance matters, is rather lukewarm on the idea.

It pointed out to BIBA that the use of one figure, and a rather nebulous figure at that, to assess a life company's financial strength is highly misleading.

It quoted the following example.

The actuary of company A takes a cautious view in his assumptions and this results in a higher value being placed on the liabilities. The actuary of company B takes a more optimistic view and his valuation produces a lower figure for liabilities.

When the liabilities are compared with the value of the assets, company B would appear to have a higher free reserve ratio than company A because its actuary has taken a more optimistic view rather than because the company is stronger. Some of the reserves in company A are contained in the higher value placed on its liabilities.

The ABI points out that the assessment of the free reserve ratio has to be assessed in conjunction with the valuation assumptions and methods used by the actuary.

In addition, the actuarial profession has always opposed any attempts to introduce standard valuation procedures.

The ABI has set out several other factors that intermediaries should take into account when assessing the financial strength of a life company. These include the asset mix between equities and fixed interest, the rate of expansion of new business and the level of expenses being incurred.

The unavoidable factor facing BIBA is that assessing a life company's financial strength requires a technical approach that an actuary can provide.

While the leading life brokers could afford to employ such technicians in their research departments, the provincial high street broker cannot.

One possible solution would be for a central organisation with the available expertise to rate life companies according to their financial strength, continually updating its results, and to make its findings available to intermediaries.

However, such a service would have to be provided on a commercial basis. A consulting actuarial firm would be ideally placed to do this. A trade body such as BIBA, though, would be at a considerable disadvantage if it tried to provide a service free to members without the necessary expertise.

APPOINTMENTS

Reorganisation at Dixons Group

Following the appointment early last month of Mr John Clare as managing director of Dixons Ltd, DIXONS GROUP has made the following promotions and appointments. Mr Nick Lightowler, purchasing director of Currys, has also been appointed group purchasing director and a director of Dixons Group management. Mr David Gilbert, senior marketing manager, has been promoted to marketing director of Dixons Ltd after starting his career at Dixons Ltd as a product manager. Mr Dale Heathcote has been appointed a director of Dixons Stores Group Far East, where he is presently general manager, following the opening of Dixons Taiwan office and the imminent opening of the Korean office. Mr Tony Djgumn, in addition to being director of corporate planning, has been made managing director of Dixons Financial services. Mr Mark Rogers, group financial analyst, has been promoted to financial director of Dixons Financial Services. Mr Chris Pavlosky has been elected to the new position of production director of Mastercare. Mr David Hamid has been appointed to the new position of marketing director of Mastercare. Mr Brent Wilkinson, a director of Dixons Ltd, has resigned.

*

JOHN BETTS REFINERS has made Mr Alec Tiley its commercial director. He was commercial manager.

*

JOHNSON MATTHEY has appointed Mr Keith Walley as deputy chairman. He joined the Johnson Matthey board as a non-executive director on March 27 1985. He was formerly managing director of Shell UK and Shell Chemicals UK and is currently chairman of International Military Services and a director of Reckitt and Colman.

*

Mr David Shephard has been appointed to the board of INTERNATIONAL DISTILLERS AND VINTNERS (UK) as finance director. Mr Shephard joined IDV (UK) in May 1983 as finance executive with particular responsibility for management accounting and strategic planning.

*

Mr Antony Northrop has been appointed to the executive committee of the board of SWISS BANK CORPORATION INTERNATIONAL.

*

Mr C. T. Neate of Smythson has been elected vice chairman of the BOND STREET ASSOCIATION.

*

SHIRE TRUSTS has appointed Mr Kenneth Kench as head of its Treasury operation. He joins from Butler Treasury Services (a division of Butler Till Money-brokers) where he was a director responsible for developing the OTC interbank currency options market.

*

THE ROYAL INSTITUTE OF BRITISH ARCHITECTS has appointed Mr Gerald Beale as the group financial controller of RIBA Companies and managing director of RIBA Magazines.

*

At UNITED BISCUITS (HOLDINGS) Mr Charles A. Fraser has been appointed non executive vice-chairman. Mr Fraser, a partner of W. and J. Burness WS, has been a non executive director of United Biscuits (Holdings) since 1977.

*

Mr Chris Beckett and Mr Bill Shiplee have been appointed joint managing directors of UNITED TRANSPORT CONTAINER HOLDINGS. Each remains managing director of their respective operating company — IFF (International Ferry Freight) and Seawheel.

*

Mr Peter Bennett, managing director of FURNESS WITHY TERMINALS, is to take up an appointment with the Tung-related American-Hawaii Cruises Inc of San Francisco, US, as executive vice president and chief operating officer. Mr Derek Harrington, chairman of Furness Withy (Terminals) and Walton Container Terminal, Felixstowe, will assume the additional responsibilities of managing director of both organisations.

BUSINESSMAN'S DIARY

UK TRADE FAIRS AND EXHIBITIONS

July 29-August 3 — British Music Fair—MAKING MUSIC (01-385 1200) — Olympia

July 31-August 3 — National Fitness and Health Exhibition — PHYSICAL (0273 206722) — Kensington Exhn Centre

August 5-10 — Women's World Exhibition (0272 215206) — Bristol

August 7-10 — Collectors Fair for Antiques and Memorabilia (021-780 4171) — NEC, Birmingham

August 17-19 — International Craft and Hobby Fair (04252 72711) — Wembley Conference Centre

August 31-September 3 — International Jewellery Exhibition (0895 20721) — Barbican Centre

September 1-5 — Castings and Forgings Exhibition; Furnaces Exhibition; International Foundry Exhibition; Metallurgical Plant Exhibition; Metalworking International Exhibition (0737 68611). International Metalcutting Machine Tools Exhibition (01-402 6671). Subcontracting Exhibition, including Surface Treatment and Finishing (01-486 1951) — NEC, Birmingham

September 2-4 — Coil Winding International Exhibition (0202 743906) — Wembley Conference Centre

September 5-6 — Vacancies in systems and information technology—VISIT '86 (01-940 7117) — Hotel Inter-Continental, W1

September 9-12 — International Freight Industry Conference and Exhibition — WORLD FREIGHT (01-642 7683) — Barbican Centre

OVERSEAS TRADE FAIRS

August 17-22 — City Planning Exhibition (021-705 6707) — Xiamen

August 20-23 — Office Technology and Computer Exhibition (01-486 1951) — Kuala Lumpur

August 23-31 — International Trade Fair (Consumer Goods) — INT SKANEMASSAN (01-486 1951) — Malmo

August 26-28 — Finnish Fashion Fair (01-486 2251) — Helsinki

August 31-September 6 — International Autumn Fair (01-240 7013) — Leipzig

September 10-14 — International Autumn Fair (01-977 4551) — Vienna

September 17-24 — International Engineering Fair (021-455 9600) — Brno

September 23-28 — International Road, Rail, Sea and Air Transportation Exhibition (01-486 4567) — Guangzhou

September 30-October 4 — International Machine Tool Trade Fair—INTERTOOL (01-977 4551) — Vienna

BUSINESS AND MANAGEMENT CONFERENCES

July 31 — London Chamber of Commerce: Seminar on the cause and effects of the "big bang" (01-248 4444) — Savoy Hotel, WC2

August 13 — Management Training Consultants: Successful supervision (Leicester 27062) — Hatfield

August 26-28 — FT Conference: World aerospace to the end of the century (01-621 1355) — Hotel Inter-Continental, W1

August 28-29 — The Roebens Institute: Hazards in water—a national seminar to discuss the implications for human health of contaminants of the water cycle — University of Surrey, Guildford

September 4-5 — Euromoney Conferences: Eurobonds '86 New opportunities in creative markets (01-236 3288) — Grosvenor House, W1

September 8-10 — Institute for Personnel Management: Personnel statistics (01-946 9100) — Embassy Hotel, W2

Frost and Sullivan: Introduction to OSI and its support for message handling systems (01-935 4433) — Regent Crest Hotel

September 9-10 — Times Conferences: Countertrade trends — prospects and challenges in the Asia-Pacific region (Singapore 065 2890507) — Singapore

September 11 — BFS: Stress (01-736 0134) — The Royal Garden Hotel, W8

September 15-16 — GDI International Conferences: Intelligent buildings (Zurich 01 724 0020) — Zurich

September 15 — Copper Development Association: Aluminium bronzes for industry (0707 50711) — Cavendish Conference Centre, W1

September 15-16 — FT Conferences: Risk management instruments (01-621 1355) — Marriott Hotel, W1

September 16-17 — Fuel and Metallurgical Journals: Independent power generation conference and exhibition IN POWER 86 (0737 68611) — Excelsior Hotel, Heathrow

September 18-19 — M.S. Conference Studies: Market research for retail property—the current state of the art (01-935 2382) — Cafe Royal, W1

Anyone wishing to attend any of the above events is advised to telephone the organisers to ensure that there has been no change in the details published.

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THE ARTS

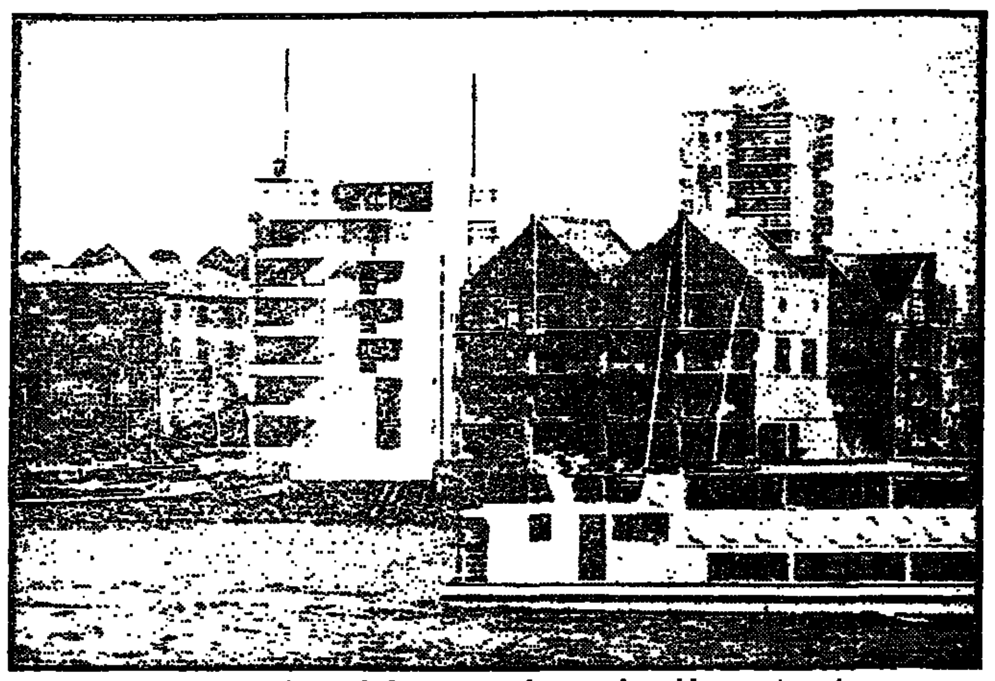
Architecture/Colin Amery

A young practice ready for a large commission

The need for new younger firms of architects to establish themselves to meet the rising tide of demands for architects' services is a pressing one. The profession seems to have reached a curious point — there is plenty of work for established architects who can provide the back up necessary to take on largish commercial jobs, but there are also major gaps. One is for firms with the whole range of expertise: mechanical, services, engineering and design skills under one corporate umbrella. In Britain the outstanding example is Arup Associates, with firms like GMW, Building Design Partnership, YRM and a few others running behind. The other gap is the small firm (say up to 20 designers) that has outstanding design skills but is also competent to provide all the technical follow up.

The peculiarly British weakness is this lack of technical expertise accompanied by design brilliance in the smaller firms. One of the newer small practices showing distinct signs of promise is Troughton McAslan. Jamie Troughton and John McAslan both worked for Richard Rogers and Partners—of Lloyds fame—and both left to set up a small practice in 1983.

As a small firm they have taken off very successfully. They have turned a redudant car showroom into studios and offices for a design company. This won them the accolade of the Institute of Management Office of the Year Award in 1985. A warehouse in Shepherd's Bush was turned into offices on a fast track system in only ten months. A factory that is now some 50 office suites was also one of their recent jobs.



A photomontage of the proposed new riverside apartments by Troughton McAslan in London's Rotherhithe

The bright blue exterior of the newly converted car showroom in London's Camden Town has now become a local landmark as the headquarters of Design House. The building occupies an extremely awkward site, on a busy crossroads and decking over the main railway line into Euston Station.

The best thing about the design is the way the architects have transformed the interior into one large volume with a central bank of internal offices with a design studio above that is well lit from clerestory windows. The whole of the old building was reclad with a specially designed screen of double glazed windows. The exposure of the great air ducts on the ceiling has a limited appeal — although it is an outward sign of economy.

In fact the few awkwardnesses of this design, particularly the junction of the curved entrance facade with the higher straight wall, and the contrived reception area with its strangely temporary look, can probably be put down to the economy of the project. For a modest £36 a sq ft, the conversion has achieved an overall high standard; for a little more money some of the inconsistencies of the design could probably have been ironed out.

The conversion of some offices from a 1910 warehouse in a London suburb is more ambitious with a central atrium and an almost Japanese style entrance area. For this client Troughton McAslan developed an interesting new lighting fitting to provide up-light from metal bowls. (An example of this can be seen in the summer exhibition at the Royal Academy.)

The proposal illustrating this article is one of the most interesting residential developments being considered for Rotherhithe in London's Dockland. It is an intriguing example of the way younger firms of architects are already raiding the repository of recent history to produce new buildings. This block of flats, with its curved glazed turret, sweeps of rendered wall planes and curved metal balconies, owes a great deal to the 1930s.

It is a bold move to suggest putting a new building in this manner into a principally brick, slate and tile area. It could provide the kind of spirited contrast that London's riverside needs.

There is indeed an irony here. To build in a 1930s-revival style alongside the solid examples of the functional tradition in the form of dock warehouses suggests almost a sending up of the idiom. The final design is under scrutiny in Dockland, and I would suggest that it is a refreshing and powerful antidote to the dolls' houses that have so far been welcomed by the authorities, almost as the residential norm for new buildings.

For a young firm Troughton McAslan have a fashionable preoccupation with the recent past. For them the styles of the 1930s are already just another historical source. Their adaptation of the "adhocism" of the 1970s is clearly where their development lies and I am sure that they are going to achieve a breakthrough of serious originality. They are ready for that next stage—a large commission and a bold client who will allow the well-nurtured seeds already planted to grow.

Sons of Ulster/Hampstead Theatre

Michael Coveney

Observe the Sons of Ulster Marching Towards the Somme by Frank McGuinness was a startling and memorable highlight of last year's Belfast Festival. Michael Attenborough's revival at Hampstead is just as powerful, gaining histrionic strength in the poetic bonding scene among eight volunteers of the Ulster Division before they embrace death in the Loyalist cause at the Somme.

On one level, this is a classic variation on the barrack room play. But it is also a resonant investigation of the motives which drove the Ulstermen to fight not so much the Hun as the Fenian on foreign soil. Mr McGuinness is a Catholic writer from Donegal and his play was first seen at the Abbey last March before travelling north. Republicanism always has a good shout in the theatre. But the Easter Rising was followed three months later by this catastrophe in which the Protestants marked their Union sealed with blood.

The Ulster flag dominated the Abbey production, a red hand at its centre. Here, the blood of young Pyper, shed by a fruit knife, makes the point as effectively. Old Pyper (John Rogan), an Armagh farmer, conjures the ghosts of the past and commands them to dance in the Temple of the Lord. The grey misty setting designed by Dermot Hayes is invaded by the volunteers, among whom Pyper, as played by John Bowe, the one who will survive, is a mysterious and satirical party, boasting of fair skin for a man and marriage to a three-legged Papist whore in Paris whom he murdered.

The formulation of fanaticism is examined in the case of the former preacher Roulston, a loping, incipiently psychotic bundle of guilt in Dermot Crowley's fine performance; also in the raucous Belfast Orangemen of Ciaran Hinds and Ian McElhinney—the latter's visit to the Front has left him pining for the paraphernalia of processions, the chasing of kids who defile the Lodge with a tricolour.

They come from Derry Coleraine, Tyrone and Enniskillen, united in the Ulster cause but for different reasons. The four interleaving duets of the third scene is a daring piece of writing, confronting the soldiers with a mythical Ireland at Lough Erne (Cuchullian is just as much their ancestor as the Fenians' says old Pyper), the quest for courage on a suspended rope bridge, and religious conviction to the hollow beating of a lambeg drum in an empty field. The Titanic is commemorated as the pride of Belfast, full of its nails, and the Great War the punishment for its sinking.

Pyper is drawn into more personal statements of loss—the death of a girl, the sham respectability of a house where Sir Edward Carson once danced—until he too is prepared for the good fight. On the eve of battle, the Battle of the Boyne is re-enacted in ludicrous horseplay, King Billy denying the script by clattering to the ground. The smell of the Somme becomes the smell of the rivers back home, the jump to oblivion a corporate foolhardy act both actual and symbolic. In a scene of high ritual, hymns are sung, bayonets fixed and Orange sashes exchanged.

As the Hampstead programme neatly points out, the 70th anniversary of the Battle of the Somme comes six months after 250,000 Loyalists marched in protest against the Anglo-Irish agreement. Mr McGuinness's play, one of the finest in the extraordinary playwriting renascence in Ireland, does not preach or gloat. It uses stories about people to meditate upon the deep and real divisions in a nation's society. It is informative and poetic, brave and thoroughly absorbing.

Patrick Mason's fine Abbey production benefited from a large-scale setting, moving out of the little Peacock into the Belfast Opera House. Mr Attenborough and his excellent cast of nine (three or four from the original) do not shirk the big din or the cry of rage, but they have also unlocked much humour and quiet passion, no mean feat with so Irish a piece in darkest Hampstead.

Ilona Sekacz's sound score takes up the drum's reverberation, the drone of battle, and Gerry Jenkinson's brilliant lighting creates space among the huddle of greatcoats.

Left to right: Reece Dinsdale, Niall O'Brien, Mark Lambert and John Bowe

Henze's Seventh/Albert Hall

David Murray

Fifteen years after his Sixth Symphony, Hans Werner Henze has composed a Seventh, which had its British première on Friday by the City of Birmingham Symphony under Simon Rattle. In obvious respects it has more of a familiar symphony-shape than its predecessors, and the sumptuous orchestration testifies to Henze's unflagging inventiveness. Mahlerian parallels have been widely advertised, but they seem to me not to go deep; I was impressed, but puzzled.

The Symphony has four solid movements—officially fast-slow-fast-slow, but in fact the finale rapidly acquires urgency, and rises four times to a climactic howl before a last fortissimo chord leaves a wan brass after-echo behind. Officially, again, the opening "Dance" movement is in proper sonata-form; but dramatically that counts for far less—quite unlike any Mahler first movement—than the continuous effect of baleful *poème dansé*. There is an initial clucking and quacking of bassoons, truculent and slightly mechanical, and thereafter an insistent throb propels the music, as if it were a new draft for the Maenadic rites of *The Bassarids*.

The slow movement is all post-Romantic *espressivo* lines, calmly agonised (Mahlerian surface, but much more ambiguous drift). The rough Scherzo has a sullen tread, soon softened and distanced by bland repetitions of melodic tags like "systems music." Like Henze's 1979 *Barcarola* the finale rocks gently and insidiously, as if betokening the coming desolation; it was easier, however, to hear the *Barcarola* as a magnified *La Valse*, a luxurious progress toward disaster. The Seventh Symphony doesn't offer such plain theatrical guideposts. For each movement, by Henze's earlier standards, is peculiarly homogeneous in texture and diction: each evolves very steadily, as in a well-behaved symphony, without sudden Mahlerian irruptions or reversals.

Perhaps this is a compromise with "symphonic" ideals, or perhaps further hearings will discover tougher structures; or again, Rattle's apparently keen reading may prove to have underplayed some dramatic nodes. The latter seems unlikely, given his sterling work in the rest of the concert. I have seen Webern's op. 1 Passacaglia in Prom performances before now, but this time one *heard* it: Rattle took it to febrile extremes with utter sympathy, and at last it made its proper mark. For Henryk Szeryng in Beethoven's Violin Concerto his accompaniment was superlatively subtle, discreet and firm. Szeryng himself played with imposing dignity—and much slow vibrato, and a foible of arriving flat at top notes; but one forgave even his inordinate Paganinian cadenza because of his committed, sweet-natured musicianship.

RSC's autumn season in London

The Royal Shakespeare Company's new season at the Barbican this autumn consists of six new productions, three of them premieres.

In the main theatre, a revival of Shaw's comedy, *Misalliance*, directed by John Caird, opens the season on October 8, to be joined by *Scenes from a Marriage*, three of Georges Feydeau's farcical one-acters combined in a new translation by Peter Barnes, directed by Terry Hands. *A Penny for a Song* by John Whiting, last seen in London in 1962, is the third play for the main house, directed by Howard Davies, and these three will play in repertoire until March 1987.

In the Pit two American plays will receive their London premieres: *Principia Scriptoriae* by Richard Nelson, and Arthur Miller's *The Archbishop's Ceiling*, written during the aftermath of "Watergate" in 1977.

The third premiere is of Deborah Levy's latest play, *Heresies*, which joins the repertoire in December, directed by Susan Todd. These three plays will play together with the current production of Nick Darke's *The Dead Monkey* until March 1987.

Lemmon's London stage debut

Jack Lemmon is to make his first stage appearance in London at the Theatre Royal, Haymarket, from August 4 to October 4 in Eugene O'Neill's play *Long Day's Journey Into Night*. Last seen in the West End with Laurence Olivier in the 1971 National Theatre production, this production was originally seen on Broadway.

It will be presented by Duncan C. Weldon and Triumph Apollo, directed by Jonathan Miller, designed by Tony Straiges and with Bethel Leslie, Peter Gallagher, Kevin Spacey

Raymonda/Covent Garden

Clement Crisp

The second performance of the Bolshoy Ballet's *Raymonda* on Friday night, with Nina Ananiashvili as the heroine, confirmed the excellent impression that the production made on its first appearance last week. Yury Grigorovich has relocated certain numbers and adjusted the plotting, so as to introduce the hero, Jean de Brienne, at the start of the ballet instead of having him merely a presence in a vision scene until near the end of the second act, and brings thereby some slight and much needed increase in dramatic sense. In every other respect, Grigorovich has been content to let the dance speak of the old ballet's traditional language and attitudes, and speak it does most eloquently.

Raymonda has never won any prizes for cogency, and its central role is more bland even than Aurora. All the more reason, then, to comprehend the ballet as one of the greatest challenges for a ballerina, who must bring the choreography to life with only the merest of dramatic excuses to sustain and colour her dance characterisation. Hence the dazzling interest and power of Lyudmila Semenyaka's initial performance, so rich in dynamic nuance, the life of the dance become the life of the role (instead of the customary reverse situation), and hence also the charm of Nina Ananiashvili's interpretation on Friday night.

Ananiashvili, lately winner of a gold medal at the Jackson Ballet Competition, is young, with dark-eyed Georgian loveliness, possessed of exceptional elevation and beautiful physique.

Raymonda presents no technical problems for her, and she sails through the ballet with a sweet vivacity and enthusiasm that give the choreography an immediate, delightful appeal. That she is still relatively inexperienced could be seen in the final act, where a sense of physical excitement lacked something in an ultimate grandeur, but in every other way this was an enchantingly fresh account of the role, and one to treasure.

The casting was, otherwise, much as on the first night, with Yury Vasyuchenko a very correct Jean de Brienne, and with untiringly excellent accounts of solos and ensembles: in everything the Bolshoy's artists believe in what they do, and we are forced by their integrity and energy to share their belief.

Mention much be made of the excellent playing of the Glazunov score by the Sadler's Wells Royal Ballet orchestra under Alexander Lavrenyuk. In earlier Bolshoy seasons we remember Lavrenyuk as a distinguished character soloist. On his retirement from dancing he trained as a musician, and in every ballet I have heard him conduct his understanding of both music and dance has meant that performers are, where necessary, nursed through variations with supportive tempi, without the music's life being vitiated by dancers' caprice. In his performances music and dance truly become one.

New ENO chairman

The Earl of Harewood will succeed Lord Goodman as chairman of the board of English National Opera when Lord Goodman retires in September

La Sylphide/Coliseum

Clement Crisp

At the heart of *La Sylphide*, under all the local colour and kilts and acreage of white tarlatans, there is a tragic tale to be told. It is a narrative which is an Ur-text of Romanticism as we watch the fine fever of James torn between reality and dream, and destroyed because he entered the realms of unattainable love. Bournonville, who did not approve of the emotional excesses and moral uncertainties of the story, created his version as a vehicle for his beloved pupil, Lucile Grahn, and the ballet's survival is not a little odd in that it is a wholly untypical example of the choreographer's dramatic thinking.

Yet survive it does, and if it is to live in the theatre, it is not because of Romantic quaintness, but because of the urgency with which the drama is shown to us. On Thursday Festival Ballet showed us a new James in Serge Lavoie, playing opposite Andria Hall's sylphide. Both artists gave technically honest accounts of their roles—Mr Lavoie strong and sure in manner, if not especially Bournonvillian in style—but emotional tension was at a premium. The narrative thus lost its essential momentum, and neither the sylphide's child-like wilfulness nor James's obsession with an ideal love could tinge the dance with its proper sadness.

For drama we had to look to Alexander Grant as a Madge wickedly amused at human folly, and suddenly revealing depths of malevolence that chilled the blood. As always with this masterly dance actor, theatrical truth blazed through every least gesture, and Bournonville's ballet lived.

BBC Welsh SO/Albert Hall

Dominic Gill

A brief note of welcome for the excellent BBC Welsh Symphony Orchestra, who played Thursday's Prom under their chief guest conductor Maris Yansons. They are an exceptionally strong band these days — perhaps even the strongest (although such comparisons are always invidious) of all the BBC's orchestral teams. The strings are rich and warm-toned: the wind (and especially the woodwind) quick and responsive. They broadcast regularly: their programmes (though not particularly adventurous) are worth searching out.

They opened the Prom with an eloquent and smoothly textured account of Chaikovsky's *Romeo and Juliet* overture, and ended the evening with a roundly sonorous, ripely (though never over-ripely) romantic performance of Sibelius's first symphony. John Lill meanwhile—who like the BBC Welsh has also recently experienced something of an artistic renaissance — was the soloist in Prokofiev's second piano concerto.

I liked his reading a lot: by turns glittering and darkly serious, in the second movement catching just the right weighty, half-jocular accents. He attacked the finale with plenty of toughness, rhythmic and tonal, without forgetting the paler, more crystalline colours, the brittle quality of the surface brilliance — and his descent into the winding shadows of the Russian folksong interlude was managed with uncommon deftness, beautifully paced.

Arts Guide

Music/Monday. Opera and Ballet/Tuesday. Theatre/Wednesday. Exhibitions/Thursday. A selective guide to all the Arts appears each Friday.

Music

July 25-31

ITALY

Verona: Arena di Verona: Verdi's requiem conducted by Daniel Oren, with the Arturo Toscanini Symphony orchestra and soloists: Cecilia Gasdia, Fiorenza Cossotto, Veriano Lucchetti and Bonaldo Giaiotti (Mon). (25 181).

NETHERLANDS

Amsterdam, Nieuwe Kerk. Recital of Italian organ music by Gustav Leonhardt. Frescobaldi, Pasquini, Zipoli. (268 168).

VIENNA

Vienna Hofburg Orchestra conducted by Gert Hofbauer. Waltzes and light opera. Konzerthaus (42 800/20 85). (Tue).

Eduard Melkus, violin, Paul Angerer, organ. Bach, Biber. Michaelerkirche (Mon).

Janacek Philharmonie Orchestra conducted by Otokar Jrhlik. Smetana. Arkadenhof (42 800/2085). (Tue).

Janacek Philharmonie Orchestra conducted by Hikmet Simsek with Ulvi Cemal, violin. Wagner, Erkin, Dvořák. Arkadenhof (Thur).

LONDON

Stuart Burrows with the Philharmonia Orchestra conducted by Barry Wordsworth with Ann Mackay and Mark Burrows in a concert of songs and arias. Barbican Hall (Wed).

Royal Philharmonic Orchestra conducted by Enrique Batiz with Barry Douglas, piano. Tchaikovsky, Rachmaninov, Sibelius, Grieg and Ravel. Barbican Hall (Mon). (638 8891).

English Chamber Orchestra conducted by Philip Ledger with Vovka Ashkenazy, piano. Mozart. Barbican Hall (Tue).

London Concert Orchestra conducted by Fraser Goulding with Ronan O'Hora, piano. Tchaikovsky, Elgar and others. Barbican Hall (Thur).

PARIS

Maurice Gendron, cello, David Braslawsky, piano: Beethoven, Bach, Faure, Debussy (Mon 7pm). Auditorium des Halles, 5 Porte Saint-Eustache.

Jean-Claude Pennetier, piano: One Hour with Ohana (Tue 6.30pm). Auditorium des Halles.

Contemporary Choir conducted by Roland Hayrabedian: Ohana (Wed 8.30pm). Auditorium des Halles.

Male Choir Ferenc Liszt conducted by Andres Toth, Gabor Lebotka, organ: Liszt Requiem (Thur 8.30pm) Saint-Merri church.

All these concerts are part of the Paris Festival Estival (47 64 99 89). Taped information round the clock in English on 47 20-88 98.

NEW YORK

New York Philharmonic: Free concert of works by Weber, Liszt and Brahms conducted by Gunther Herbig and James Conlon will be performed on the Great Lawn in Central Park (Mon) and Marine Park, Brooklyn (Tue).

Mostly Mozart Festival (Avery Fisher Hall): Tokyo String Quartet with Emanuel Ax piano, Pinchas Zukerman viola. Mozart, Beethoven (Mon); Festival Orchestra. Gerard Schwarz conducting. Oscar Shumsky violin. Mozart, Beethoven, Viotti (Wed); Chamber Music Society of Lincoln Center. Mozart, Beethoven (Thur). Lincoln Center (874 2424).

WASHINGTON

Summer Festival (Concert Hall): Highlighted by a visit from the Newport Folk Festival in August, this summer-long string of popular singers and musicians includes recital performances from Neil Sedaka, Shirley Bassey, Dionne Warwick and Petula Clark. Ends Aug 27.

CHICAGO

Ravinia Festival: Misha & Cipa Dichter piano recital. Mozart, Saint-Saens, Liszt, Schumann, Copland, Infante (Mon); Winton Marsalis trumpet with David Murray Octet jazz recital (Tue); Chicago Symphony conducted by Edo de Waart with Heinz Hollinger oboe. J.S. Bach, R. Strauss, Dvořák (Thur). Highland Park. (728 4642).

SPAIN

Barcelona: Summer Festival Grec 86 offers Orchéstre de Jeunes de la Mediterranée with piano accompaniment by Albert Jimenex Atenelle. Beethoven, Ravel and Xenakis. Basilica de Santa Maria del Mar. (Thur).

Serenata/Wigmore Hall

David Murray

Serenata is a chamber ensemble of flexible size—extravagantly flexible on Thursday, for they employed 17 players in a programme that used no more than 12 at once. That was for Stravinsky's Concertion, which began life as his 1920 String Quartet and was re-written for the larger group in 1952. The pairs of trumpets and trombones who called by just for this piece were incisive and bracing, fully as effective as the official soloists on violin and cello, who were efficient but a trifle humourless.

If this redoubtable group has a failing, indeed, it is that the lively, full-blooded ensemble attack is not complemented by solo finesse. When exposed, the intonation of single strings was not beyond reproach; and in Louis Spohr's irresistibly winsome Nonet there should have been more elegant detail along with the all-out verve. (The chains of solo semiquaver flourishes in the Allegro, for example, were too flurried to serve as the bright little showoff turns they ought to be.) Prokofiev's op. 39 Quintet made do with broad colour-contrasts well enough, but more fine-drawn lines were needed to indicate its quirky depths.

Luckily Serenata boasts an extrovert first clarinet, who supplied welcome personality to Prokofiev in particular, and also to the most substantial work in the evening, Mozart's E-flat Serenade for winds. The Mozart was a consistent pleasure—well-judged, well-tuned, sonorous and fresh. It made a lovely noise in the Wigmore, from the rich opening chords to the fleet Finale. In Spohr's Nonet, too, the smaller wind group had a more assured internal balance than their string colleagues, who lacked nothing in energy and high spirits but scored lower on poise. In this piece, the Nash Ensemble doesn't need to look to its laurels yet.

Still, I have not done justice to Serenata's communicative enthusiasm, which makes it an ensemble we shall be glad to have around as long as the players' individual commitments permit (they are mostly members of other, bigger bands). The Nash is good enough to deserve a competing group, and especially one which can put together programmes as engaging and ingeniously varied as Thursday's.

FINANCIAL TIMES
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Monday July 28 1986

The Alliance approach

BRITAIN'S Liberal and Social Democratic Party Alliance last week produced a consultative paper called Partnership for Progress that amounts to a draft manifesto for the next general election. It was discussed at a meeting of parliamentary candidates from both parties in London at the weekend and should be in its final form by the end of January.

The paper has already been dismissed by Mr Douglas Hurd, Home Secretary, as a "masterpiece of blandness," which in some ways it is: for example, in its approach to civil nuclear power, which it appears to be neither for nor against. There are also differences within the Alliance over nuclear weapons which, as recent arguments have shown, remain to be resolved and are more or less glossed over in the consultative paper.

None of that should detract too much, however, from the way the Alliance is going about the business of policy formation. It is doubtful whether such civilised and democratic discussions on policy could take place *en masse* in either the Tory or the Labour Party.

Essentially, what the Alliance is trying to do is to chart a course that avoids some of the harsher aspects of Mrs Thatcher's Conservatism while acknowledging that much of the stress on market economics by the present administration has been for the good.

The paper says: "The SDP and Liberal Party bring together ideals which the Conservative and Labour parties believe to be mutually exclusive: enterprise *and* welfare, a market economy *and* social justice, economic development *and* environmental integrity, equality for women *and* support for the family, British achievement *and* international co-operation."

Budgetary expansion

Any party that pulls off that mix deserves to be going places. Yet the signs are at present that there is still some way to go. The Alliance in the past—and the Liberals, before the SDP was formed—used sometimes to be criticised for having no policies other than being on the side of virtue. The more telling criticism was always that the Alliance had too many, as if every conceivable problem could be resolved by setting up a study group and producing a discussion paper.

This excess has now been acknowledged. Partnership for Progress runs only to 25,000 words and presumably the final document will be shorter. There is still some difficulty, however, in distinguishing the wood from the trees, in singling out the bright new ideas from the inheritance of the past.

Incomes policy, here dressed up as "incomes strategy," is an example. Whatever Dr David Owen, the SDP leader, may say about having embraced the social market economy, the paper remains full of proposals for government intervention, including a counter-inflation tax on pay deals regarded as excessive and a levy on companies which spend less than an agreed quota of their wage bill on accredited training. The paper also commits the Alliance to budgetary expansion to relieve unemployment without being remotely specific. Those are matters with which candidates will have to be ready to deal in an election campaign.

References to the need for better education are dotted about all over the paper. Several members pointed out at the weekend that they ought to be brought together in a single section. They are right.

The fact that the Alliance wants to do so much on so many fronts at once tends to obscure some of its better proposals. Quite the best of these is the integration of tax and benefits and the simplification of the tax system on the basis of fiscal neutrality. That should become entirely possible with the development of computerisation in the early 1990s. It deserves to be a centrepiece.

Equally appealing are some of the ideas on constitutional reform, including the introduction of an elected element in the second chamber to represent the regions.

It is sometimes said nowadays that the Alliance is in danger of being squeezed between a Conservative Party that is moving back to the centre and a Labour Party that has become more moderate under the leadership of Mr Neil Kinnock. That is not the evidence of most of the by-elections nor of the local elections. On the contrary, the Alliance itself could operate a squeeze on both major parties from the centre. The revised version of Partnership for Progress should be worth reading.

Dialogue on arms control

FOR SIX years, arms control between east and west has been in deadlock. In the early days of the Reagan Administration, the atmosphere was embittered with violent mutual recrimination between Washington and Moscow; 1982 and 1983 were dominated by the long-drawn-out struggle over the deployment of the US's Euro-missiles; in 1985 the Soviet Union returned to the negotiating table in Geneva, but no progress was made.

Now it appears that the two superpowers are approaching an opportunity for serious negotiations on a number of fronts; how they handle it, over the next few weeks, is likely to determine whether real progress can be made, both in arms control and in some degree of political rapprochement, during the remaining two years of Ronald Reagan's presidency.

A large part of the blame for the prolonged stalemate can be laid at the door of the Russians: their large military build-up in the 1970s; the shock of their invasion of Afghanistan in 1979 and the crack-down in Poland in 1981; their transparent refusal, during the long Euro-missile negotiations, to contemplate any deal which could possibly have been regarded as equitable by the west; their equally stubborn adherence, in 1985 and the early months of this year, to unacceptable proposals on strategic nuclear weapons in the resumed Geneva negotiations.

In terms of the domestic political debate in the US, Soviet awkwardness has perversely played into Mr Reagan's hands. It has permitted him to espouse the rhetoric of arms control, but it has also exonerated him from having to take the hard decisions involved in a real negotiation. When Mr Mikhail Gorbachev made his spectacular public proposal last year, for a 50 per cent cut in strategic nuclear weapons, Mr Reagan felt obliged to follow suit. But so long as the Russians stuck to extreme positions at the negotiating table in Geneva, and thus engendered doubts as to the seriousness of their declaratory posture, the President was relieved of any real pressure to arbitrate between the doves and the hawks in his administration.

That position has now been reversed. On a number of fronts, the Soviet Union has significantly softened its position, to the point where it can legitimately require a response from Washington. It has abandoned the attempt to redefine the category of strategic weapons so as to catch a significant number of US missiles and aircraft in Europe, and has gone back to the definitions used in the Salt treaties. It has abandoned the attempt to secure from Washington a total renunciation of Mr Reagan's SDI missile defence programme, and instead is demanding a tightening and an extension of the Anti-Ballistic Missile Treaty.

It has undermined part of the US's case on nuclear testing, by permitting unofficial US scientists to install seismographic equipment on Soviet territory, and it is prepared for negotiations on nuclear test issues, without insisting that they can have no purpose except to conclude a total ban. And it has softened its position in the Stockholm negotiations in ways which have encouraged new optimism over the prospects for an agreement on confidence-building measures in Europe.

Latest response

The underlying suspicions about the Kremlin's strategic objectives remain; but in the light of these recent shifts of position, it has become much more difficult to claim that Mr Gorbachev's support for arms control is just empty propaganda. The inference is that Moscow has now decided to put Washington's seriousness to the test.

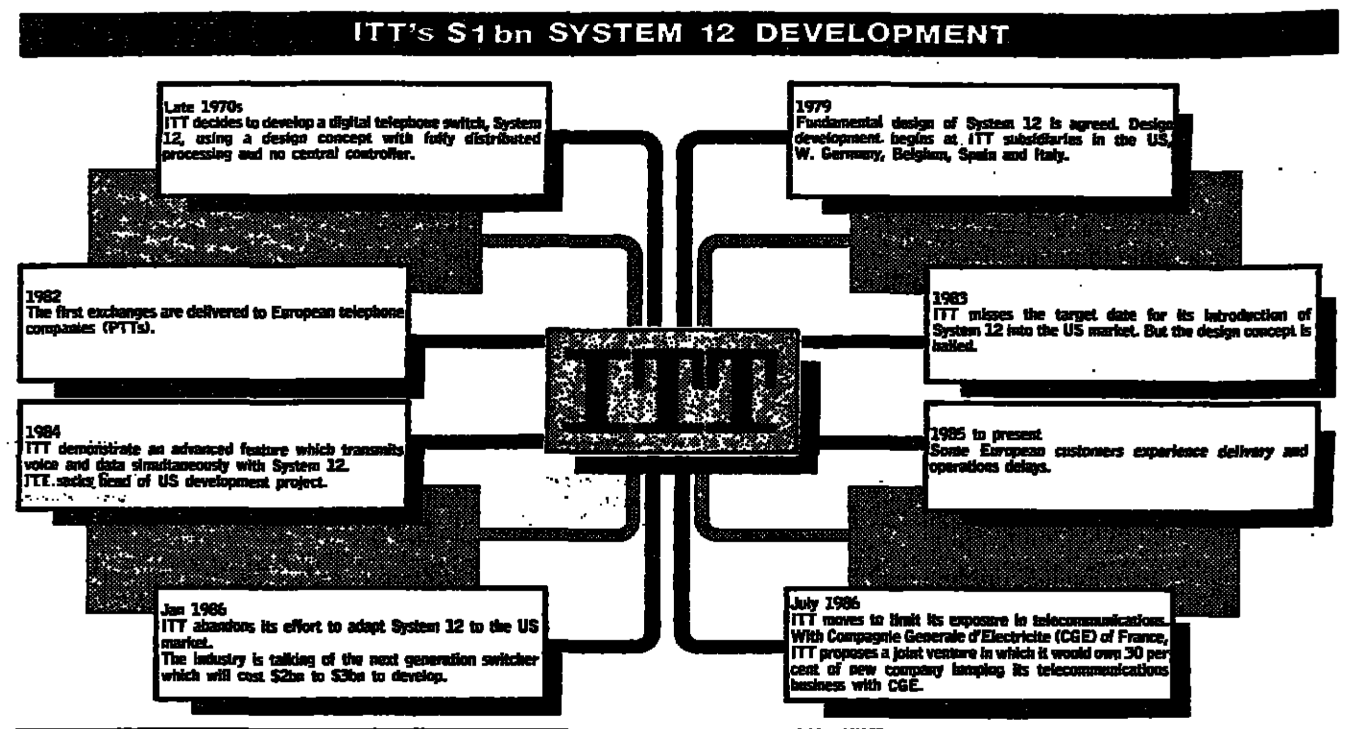
Certainly, Mr Reagan's letter to Mr Gorbachev, which was canvassed with US allies before being delivered to Moscow over the weekend, is, for a change, openly conciliatory. Its substance is another matter. The President's main concession is an undertaking not to deploy an SDI system for five years—not the 15-20 years' delay that Mr Gorbachev wants.

Neither side can at this stage expect its position to be taken by the other as final. There must be more moves—before and after any new superpower summit—if this central issue of arms control is to be resolved. The opportunity is still there, for each side to grasp, to break the six-year impasse.

THE ITT-CGE DEAL

A hole in the system's heart

By Jane Rippeteau



IN 1983, the Norwegian Telecommunications Authority signed a four-year contract with International Telephone & Telegraph (ITT) for delivery of what were to be among the world's most advanced telephone switching machines; computerised systems that route calls to their destination.

Norway is still waiting for the machines, according to Mr Per Wilhelmsen, technical director for the Oslo region of the Norwegian Telecommunications Administration.

Even if the first major system goes in at Oslo this Christmas—a year late—it will not be the advanced version ordered, says Mr Wilhelmsen. *To make up for the delays*, Norway turned to L. M. Ericsson of Sweden. That company—which reserved equipment at the first contact from Norway at Easter—already has some of the machines hooked up and running.

Norway is not alone in having troubles with ITT's switch, called the System 12, a digital machine which competes with equipment supplied by Ericsson, Siemens, American Telephone and Telegraph, Northern Telecom, NEC and others. These companies share the $12bn to $15bn in yearly orders that the world's telephone companies place for such machines.

But for ITT, according to close observers, persistent technical problems born of a design flaw in the development process jeopardise the System 12's future in this local exchange business.

This could be an unnerving scenario for the French Government, which is to rule this week on a merger proposal by ITT and France's Compagnie Generale d'Electricite (CGE), which controls Alcatel, the telecommunications equipment maker for 85 per cent of the French market. Under the plan, ITT would shift its $4.6bn a year telecommunications business into a joint company of which it would own only 30 per cent.

That company, while gaining from ITT's prized presence in international markets, would have ITT's troubled System 12 and two Alcatel systems, one of which is becoming outdated and another that has had operational problems, according to industry executives and observers.

The first switch, although a huge success in France and sold to 51 other countries, was one of the earliest developed and even with enhancements "is on its last legs," says Dr Kevin Morgan, an economist at Sussex University, who is researching a book on European telecommunications. The French are "desperate for collaboration because their system is the most archaic," he says.

Dr Morgan is among some individuals who question the joint venture. "How on earth do they rationalise these diverse systems, and meet the costs of updating them?" he asks.

ITT defends its heavily-marketed System 12, which has been delivered to 13 countries. "The problems have been exaggerated," says Dr Renaat Van Malderen, product marketing executive, public networks at ITT Europe.

Capacity is measured by the number of subscriber lines served, and ITT says that it has orders for 12m lines—as many digital local lines as were shipped in the US last year, according to Northern Business Information.

But only a fraction of that number, about 1m lines, are in operation. The company admits there are delivery delays in Norway, Denmark and Spain.

Moreover, in January, ITT decided to abandon a $155m attempt to adapt System 12 to US standards, killing its once promising chances in the vital American market. That decision was "not a question of ability, but of time and money," says Mr Van Malderen.

US market growth is expected to peak soon but ITT's competitors still believe it is essential to be in the US because of high volume sales, an expected new buying spree by 1990, and the sophisticated demands of the deregulated Bell operating companies.

CGE has itself been anxious to get into the US. Its success there has been limited because its own product is suited best to small-volume rural and suburban locations.

The proposed deal leaves CGE without the kind of sophisticated urban switches that System 12 was meant to be.

CGE has been anxious to get into the US

The Bell market is now shared by AT & T and Northern Telecom.

CGE says that company engineers have studied System 12 and "the decision was made that we would be able to cope with problems if there are any left."

Sceptics, however, believe ITT's troubles with System 12 are more persistent. They lay blame on poor management, including an over ambitious $1bn development schedule, disagreements between top management and engineers, and simultaneous development at scattered locations in the US and Europe.

But this exacerbated a technical error early on that was never corrected, according to at least four individuals involved. In 1980, a basic design flaw was evident. But ITT had already committed itself to deliver to several customers by certain dates.

"They had to make a choice whether to go back and redesign," says Mr Peter Thomas, who ran the US System 12 programme until two years ago and is now head of Ericsson's US subsidiary, a direct competitor in the US until ITT pulled out. "It was like building a home and finding cracks in the cellar before finishing the rest. But they never went back to solve the problem."

Today's automated telephone systems go into action when a person picks up the phone to place a call. Rather than speaking to an operator, he or she dials a number and the request is speeded across transmission lines to central switches.

These process the request. That is, they analyse the digits to determine whether a call is local or international, whether the desired line is free or engaged and what transmission resources are available to carry the call.

The analysis is carried out by computer hardware equipped with instructions known as software. And it involves a lot of messages. Just like friends calling up each other in town, processors forming the computer heart of the system buzz among themselves, passing messages to route the call.

In today's speedily-changing telecommunications world, customers want maximum flexibility in these switching systems.

AT & T Bell Laboratories, among others, conceived the notion of building-in such flexibility by distributing processing power around a switch in modules so that capacity could be expanded as needed. A medium-sized town, say, could start with a small machine and add modules as telephone use increased—rather than scrapping itself from the start with a big expensive machine.

AT & T's "5ESS" switch uses this concept to an extent. The latest AT & T systems can grow from 4,000 to over 100,000 subscriber lines by adding up to 192 modules, the company says.

ITT used the same idea, but took it further. In a unique feature it believed would give its machine "virtually unlimited expansion capability," ITT used fully distributed processing without any centralised function. Even Mr Thomas of Ericsson concedes that it works in properly the switch would be "something very unique in its ability to grow."

Instead, critics say, System 12 takes the concept to an extreme, creating too many dispersed modules. "The concept was good," adds Mr Cas Skrzypczak, vice president at Nynex, a Bell regional holding company, who examined System 12. "The problem was inability to translate it into a working switch, at least in the US."

Mr Kurt Katzeff, chief scientist at Televerket, the Swedish telecommunications administration, was head of technical development for ITT in Brussels in the late 1970s, leaving in 1980 over a disagreement on System 12 development. "The importance of central functions was underestimated by the designers," he says. Processing modules spend so much time talking to each other that they are unable to process calls efficiently and "you get an overload."

Critics talk of a flaw in the design

This limitation may not occur in small exchanges, but it can cripple the performance of a large switch, critics say. Current installations of the switch "are relatively small and simple," says Mr Thomas. "When it gets large or complex, all the messaging just blows it up."

The phenomenon is particularly true for exchanges of over 10,000 lines, says Mr Richard Ryder, a securities analyst who follows the telecommunications business for Phillips & Drew.

ITT's Mr Van Malderen denies these charges, which he claims are motivated by ill-will. He stresses that System 12's advantage is the lack of a central processor "which is limited in the number of functions it can handle in X amount of time." ITT's prior-generation machine, called the Metaconta, is of centralised design, and ITT decided "in the late 1970s to go to decentralised and work on just one system, System 12," he says.

Mr Van Malderen adds that "95 per cent of exchanges delivered are below 25,000 lines." Yet that seems to belie the concept of System 12, that it can be expanded to handle many thousands more lines.

The largest System 12 in operation is in Madrid and handles 12,000 lines, according to ITT. The largest delivered, to Trondheim, Norway, is 22,400 lines, but only 7,000 are operating so far. "It is running and running well," says Mr Wilhelmsen. "But we don't know what the traffic handling capacity of the system is."

By comparison, AT & T Bell Labs says that the largest 5ESS switch in use at the end of last year was 55,300 lines, with one of 84,500 lines going in this year.

There is another design flaw in System 12, according to Mr Ted Franks, who was once Mr Thomas's technical chief at ITT, in that there is no discrimination between simple and complex processing tasks. Monitoring a line to see when a subscriber picks up the phone to place a call must be done continuously, but it is a simple job. By contrast, a complex but less frequent task would be billing for a call, or carrying out a maintenance audit.

Mr Franks says that System 12 allocates the same processing power to both jobs. Hence, resources brought to bear are either "hopelessly undersized" or "overkill." Other designs get round this problem by "looking for commonality among functions and mapping the system to lump like ones together," he says.

Mr Franks and Mr Thomas in 1984 proposed a $150m, three-year plan to resolve these issues, but it was turned down by management, Mr Franks says. The proposal was two-fold: to make the software more discriminating to reduce messaging, and to introduce more powerful microprocessors. Mr Van Malderen of ITT says that the basic microprocessors and software have not been changed.

Whether such steps are still needed and can now be taken easily is unclear. "It might be difficult to correct them without starting from scratch," says Mr Goran Hendal, a software specialist who worked on System 12 in the early years and is now with a UK software company, Advanced Systems Architecture. Mr Thomas believes "it could be fixed," but would take several years and "fairly extensive resources."

That burden, if the ITT-CGE telecommunications deal goes through, will fall mostly on CGE since ITT would retain only a 30 per cent interest. The question remains: In its union with ITT, just what would France really be getting?

Men and Matters

The Guinness search for Scots

The question on the lips of every paid-up member of the Scottish financial mafia is: "Who is going to accept Ernest Saunders' invitation to join the Guinness board?"

Guinness is searching for up to three non-executive directors following its controversial announcement this month that it was dropping plans to appoint Sir Thomas Risk, governor of the Bank of Scotland, as non-executive chairman of the group. Risk was to head a supervisory board based in Scotland following the successful £2.5bn takeover of Distillers.

The problem is that Risk has powerful friends, many of whom were angered by the way he was treated by Saunders. The same applies to Charles Fraser, an Edinburgh lawyer and chairman of Morgan Grenfell (Scotland). Fraser was named as a non-executive director of the supervisory board and was instrumental in encouraging Risk to come aboard. He too, has withdrawn.

Several potential candidates for the Guinness board have been mentioned—but none, so far, appears entirely convincing. Sir Hector Laing, chairman of United Biscuits, must be a non-starter, since Fraser sits on his board. Equally, Angus Grossart, who heads Noble Grossart merchant bank, is hardly a front-runner. He advised James Gulliver's Argyll supermarkets group when it fought Guinness in the battle for Distillers.

This all goes to show how intertwined are the loyalties of the Scottish financial establishment. Saunders will have to exercise all his familiar charm if he is to beat a boycott which, at present, looks about as effective as the one which struck the Commonwealth Games.

"It's Bob Geldorf's morning suit."

Home and dry

The 520 members of the West German Bundestag (Lower House) are being rehoused after the summer recess—in a 19th century waterworks building just down the road from their usual home.

But forget those jokes about political wets. Their temporary quarters are going to be drier than the parliament building which has been periodically flooded by the Rhine.

When the Federal Republic was created in 1949, its parliament was given a temporary home in a former teachers' training college. As often happens, the temporary arrangements became permanent.

Now, 37 years later, apart from the floodings, ceilings have collapsed, and the general condition of the place hardly matches the dignity of its occupants. But the building does enjoy a special affection among the public—probably more so now that it has been decided to spend £80m on renovation rather than £300m on a new building.

Members are not expected to return to their original quarters until 1989. Meanwhile rows and rows of chairs are being crammed into the old waterworks to ensure that one German parliamentary custom, long abandoned at Westminster, is maintained—that every member of the House has a place to sit.

Higher Watts

Slowly, the City of London's traditional male preserves continue to open to women. Kleinwort Benson at the weekend appointed its first woman director, Lesley Watts.

Watts, aged 32, is still only the third of her sex to occupy such a post in the corporate finance departments of London's merchant banks. Yet, she says: "I have always been encouraged — never felt that I was there on sufferance or aware of any barriers."

In fact, she jokes, "being a woman may help on the way up. There are so few, that once people get over their initial surprise, they do tend to remember your name."

She is not so sure whether those advantages last. "Men tend to look more distinguished as they get older; women tend to try to hide the grey hairs and the wrinkles."

But the toughest demand to be faced in merchant banking, she says, is the "huge commitment that cuts into your private life."

Watts, who got a law degree at Cambridge, qualified as a solicitor with Slaughter and May, and passed her New York state bar exams with Shearman and Sterling, before joining Kleinwort in 1981. After a year in the capital markets division, she switched to corporate finance, where she has been involved in a string of successful transactions—the Bowater demerger and restructuring, Hillsdown's offer for sale and acquisitions, the Cadbury Schweppes acquisition of Canada Dry, and Amstrad fund raising.

She was a cricket blue at Cambridge but for relaxation now has turned to fly-fishing. "It's practising the art in beautiful scenery that I enjoy," she says, "rather than actually catching fish."

Starting point

My report last week on the sale of Universal News Services stirred a few memories for banker, Anthony Cavendish, who founded UNS in 1959 with two other then journalists, George Pipal and O'Dowd Gallagher.

As all three had full-time jobs, they invited Alfred Geiringer to come in and run the news agency, which he subsequently took over and expanded, and has now sold to the Press Association.

After UNS, Cavendish, a former MI6 officer, who is writing a book on post-war intelligence, founded the Caparo group with Swraj Paul and lawyer, Gerald Rothman—using the first two letters of their surnames to devise a name for the company.

Cavendish quit as a director of the holding company recently with some bitter words to say about Paul.

But his penchant for starting things remains—he has since founded a merchant bank and two finance companies overseas and is currently setting up a new merchant bank in the City for an Italo-Swiss group.

Backslider

A reader wrote to the former employer of a 17-year-old girl who had applied for a job to ask how she had shaped up.

"Dear Sir," came the reply, "When Elaine left my office, she was a month behind with her work. She has been with us a fortnight. Yours."

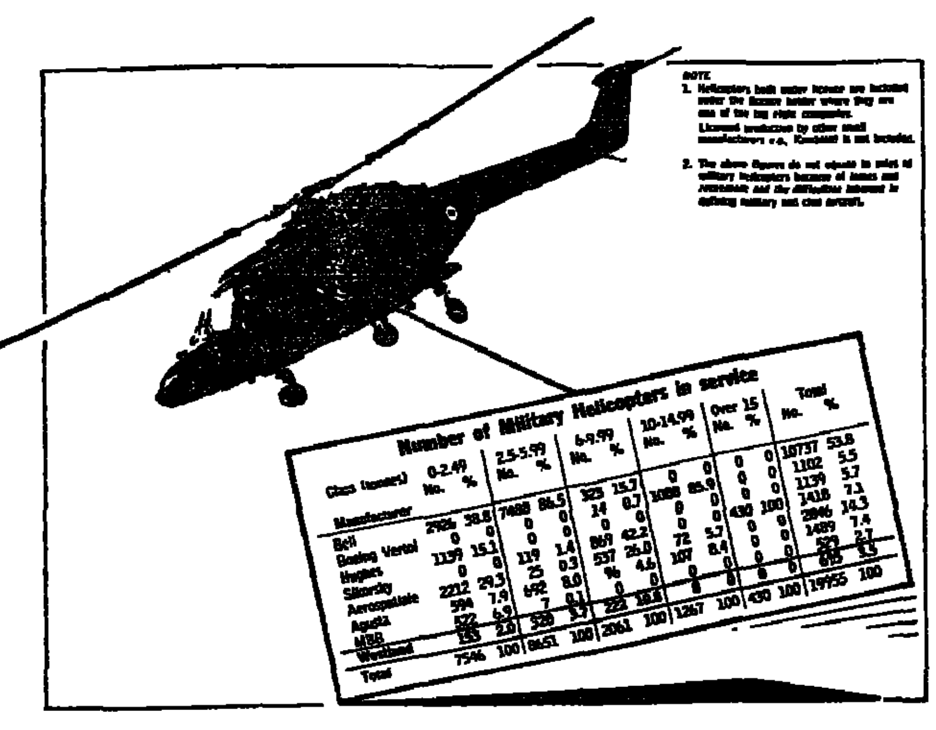
Observer

WORLD-WEARY professionals down at the House of Commons claim to find nothing new in the Defence Committee's report on The Government's Decision-Making in the Westland Affair, but in my book only one word adequately describes it: *sensational*. It is true that its account sheds little fundamentally new light on who did what to whom and when; but seldom, if ever, within living memory can a British administration have been subjected, by a committee which includes a *substantial majority of its* own parliamentarians, to such a withering, such a sustained, such a *contemptuous* indictment on charges of incompetence, deceit and disreputable behaviour.

Foreign Affairs: Westland

The flight of fantasy that ended in fiasco

By Ian Davidson



Few people will ever read all 68 pages of this pitiless prosecution. But future historians will treasure it on two grounds: as a considerable work of inquisition, in which the testimony of government witnesses is wrung out and found, not just wanting, but on many points incredible to the point of mendacity; and even more as a minor masterpiece of understated invective, in which Parliament expresses its rage at the careless misdeeds of over-mighty princes.

No-one reading the report can fail to be struck again by the lamentable role played in the affair by Mr Leon Brittan, the then Secretary for Trade and Industry and the eager cat's-paw of Mrs Thatcher: unreflectingly interventionist in heat of battle, stubbornly *evasive* when the walls came tumbling down. It must be questioned whether his political reputation can ever recover after this exposure. Sir Robert Armstrong, the Cabinet Secretary whose tenure has just been extended by Mrs *Thatcher, fares little* better. Mrs Thatcher herself barely escapes with a stiffly formal exculpation of any positive wrongdoing; a Scottish court would have brought in a verdict of "not proven." Mrs Thatcher last week again de*fended the integrity of her* officials; but if they were not guilty of disreputable behaviour, then she must have been — there does not seem to be a third possibility.

In short, the report conveys the unmistakable whiff of *rebellion against* a style of government which, in this instance, was so contemptuous of Parliament and public ethics, and so stupidly *incompetent* in the name of an impartiality which was flouted at every turn, that it managed to lose two of *the most prominent* members of the Cabinet.

Yet it would be a pity if the committee's castigations were to reinforce the tendency of the watching world, so apparent at the time, to concentrate exclusively on the Dallas-like melodrama of skulduggery and constitutional impropriety.

Undoubtedly, Mr Michael Heseltine over-rated his ability to bring off a European alternative to the Sikorsky bid, partly because he mounted it too late, but mainly because he underrated the power of Mrs Thatcher's political and administrative machine to thwart him, by fair means or foul. Yet the policy issues raised by the Westland quandary remain just as unresolved today as when Mr Heseltine resigned, and they remain unresolved because the Government was, on this issue, apparently unable or unwilling to string two coherent thoughts together on the subjects of defence procurement from national contractors, the relative roles of the state and the private sector in defence procurement, and the issue of European collaboration.

The Defence Committee makes a manly attempt to grapple with these questions in its companion report on The Defence Implications of the Future of Westland. It provides a useful compendium of background information which will be essential for any serious debate. But because the issues are genuinely more complicated than those of the political whodunit, its conclusions are less coherent and less gripping. From this point of view, it is perhaps a pity that these policy issues were siphoned off into a separate report, which is thus likely to receive less attention.

In the first place, the report underlines both the extreme weakness of Westland in the international helicopter market, and the relative weakness of all the European helicopter manufacturers compared with their American competitors. Not merely is Westland one of the smallest producers, it is the only producer which was not part of a much larger conglomerate. Moreover, the American helicopter manufacturers *have two large advantages over* the Europeans: they produce for a much larger national market, and they have concentrated much more in specialised sectors of that market. Most of Bell's helicopters are small, most of Sikorsky's are of medium size, most of Boeing's are larger.

The British Government professed to take the impartial view that the solution to Westland's troubles must be found through the market place. Yet it followed, from Westland's inherent weakness in that market place, that a solution was bound to be determined by other actors; and since a large share of every helicopter manufacturer's output is bought by national defence ministries, it also followed that these defence ministries were bound to be among the actors.

There may come a day when governments will buy defence equipment on a free market, regardless of national origin; but this policy has not yet been adopted by Britain or any other country with a significant industrial base, and there has been no suggestion that the British Government is about to adopt it. The story of the Nimrod airborne early warning radar, and countless other instances of defence contracts awarded to national champions, is eloquent testimony to a very different policy. The only rational explanation for the Government's fiction about market forces in the Westland affair is partly that Westland was too small to be treated as a viable national champion, and partly that the Government did not (and still does not, according to the re*port) have a coherent policy on* the procurement of helicopters.

The committee points out that the military helicopter is now in world-wide use in a greater number of roles than ever before, and suggests that helicopters may have an in*creasing role to play in future*, as a result of growing concern over the cost and manoeuvrability of heavy ground forces. It cites the increased emphasis in Soviet doctrine on speed of manoeuvre, as epitomised by the new Operational Manoeuvre Groups, and the central role of the helicopters in the new French Force d'Action Rapide.

Yet despite all these considerations, it notes that only the US and the Soviet Union appear to have coherent policies for helicopter acquisition; other countries have more often tended to treat helicopters as "top-up" buys, when funds permit and other more specialised needs have been met. The British Government made a major and ultimately successful attempt to secure agreement on a new Eurofighter on a collaborative basis; but Westland was to be left to "market forces." Mr Heseltine told the committee that he thought it was essential for Britain to have a helicopter industry; but the Deputy Chief of the Defence Staff (Systems) merely thought it was desirable.

As the Westland drama was approaching its climax last November, the National Armaments Directors of Britain, France, West Germany and Italy recommended, in support of the European consortium bid, an intergovernmental agreement that the *four* countries would meet their future requirements with helicopters designed and built in Europe. This agreement was denounced by Mr Leon Brittan as "a monopolistic, anti-competitive and coercive directive" which pointed a *pistol at the company and gave* it no alternative.

Sir David Perry, the British NAD, told the committee that "in most of our collaborative programmes there are components which are not sourced from within Europe;" that there *was at least a possibility that* the Anglo-Italian EH101 helicopter might be powered with a General Electric rather than a Rolls-Royce engine; and that a collaborative programme in which an American firm took a 20 per cent share, might be considered by the NADs to be a "sensible programme."

The paradox is that the British and other European governments were already moving towards the joint development of three classes of military helicopter well before the Westland affair came to a climax. Westland and Agusta were launched on the development of the EH101 13-tonne anti-submarine helicopter and the A129 light attack helicopter, and the four NADs had started feasibility studies of a middle-weight support helicopter, the NH90.

The committee concludes that neither of the two Anglo-Italian projects is necessarily threatened by Sikorsky's victory; but Westland's participation in the NH90 may be jeopardised, partly because it would be a direct competitor of Sikorsky's Black Hawk, but partly because the British Defence Ministry is wondering whether it does not after all need a bigger support helicopter—of the size of the EH101.

On the other hand, the committee recognises that, in psychological and political terms, a Sikorsky victory could reasonably have been expected by the Ministry of Defence to have inflicted damage on the general cause of European defence collaboration "over the whole field of defence production and procurement," and it concludes: "Some damage has undoubtedly occurred."

Personally, I am not sure how serious or permanent this damage is likely to be. In the face of the ruinous cost of purely national procurement, Britain is increasingly forced to seek collaboration, and its natural partners are mostly in Europe. The Westland fiasco was just the combined result of a government flight into a free-market fantasy over defence procurement and the absence of a coherent policy over helicopter procurement. Almost certainly less damage has been inflicted on the general cause of European collaboration than on the personal reputations of a number of British politicians and officials.

Lombard

Volcker's logic open to query

By Samuel Brittan

THE MORE disturbing contrast lies in the source of that growth. In the United States, the rate of growth in domestic demand, while slowing in the third year of expansion, continued to average about 3½ per cent through that period. Domestic demand growth in the industrialised countries of Europe and Japan was significantly less—about 2½ per cent. Paul Volcker, Senate testimony, July 23

PAUL VOLCKER has more right to talk about the dangers of inadequate demand growth in Europe and Japan than the many commentators who have been calling for reflation in season and out of season, even when the real dangers facing the world have been precisely the opposite.

But even Mr Volcker is in danger of committing a logical fallacy in stating his case.

The implicit argument seemed to be:

1. US demand was rising faster than gross national product;

"WORLD" DEMAND AND OUTPUT

Changes in billion dollars

	Oceania	Eurasia	Total
Domestic demand	+15	+ 5	+20
GDP	+10	+10	+20
Changes in external balance	− 5	+ 5	0

2. European and Japanese demand was growing more slowly than their GNP;

3. Position (1) cannot continue, because of the need to tackle the US payments deficit. Therefore European and Japanese governments had to boost home demand.

Not far away are the siren songs of those "Keynesian" economists who can never see "where the demand will come from," and those who talk as if a reduction in one country's fiscal deficit must be balanced by an increase in another's.

The Fed chairman is being trapped by an accounting identity, as I have tried to show in the simplified table which divides the world into Oceania and Eurasia. If Oceania has an increasing deficit with Eurasia, by definition, domestic demand is growing faster than gross domestic product in Oceania and more slowly in Eurasia.

If by some combination of fiscal restraint and exchange depreciation Oceania can arrest the decline in its balance of payments, so that the bottom line of the table comes to 0, demand will grow at the same rate as output both in Oceania and Eurasia without any further policy change.

What then are the real dangers? One is that the Eurasians will try to stop the correction of the payments imbalance, because their own economic structures are too geared towards exports. If they succeed, the Oceanian balance may never be corrected; but even if they fail, the attempt of the two areas to follow mutually incompatible payments objectives can drag down growth in Eurasia, Oceania or both.

There is another danger which one can select from the infinite possibilities. This is that after the correction of the Oceanian deficit, GDP growth will be dragged down to say $5bn in Eurasia, instead of domestic demand growth being pulled up to $10bn.

Extreme Keynesians would regard this as the normal outcome—without asking how the world managed to grow, before we heard of demand management. Extreme "new classical" economists believe that self-stabilising forces would be enough to raise Eurasian domestic demand growth to *$10bn without specific policy* action. But this is to assume that the self-stabilising forces always work perfectly.

The sensible posture is to have contingency plans to maintain demand and GDP growth of $20bn in the world economy *and of about $10bn in each* country. This may require fiscal as well as monetary easing in Eurasia for a time. We do not know *a priori*.

But the most important proviso of all is that GDP objectives should be in nominal—not real—terms. This would provide the West Germans with a safety net against inflation and the Americans one against deflation. The essential message could be conveyed without the Fed's misleading national income arithmetic.

Letters to the Editor

Germany not disappointing

From the Director of European Economics, General Motors Corporation.

Sir,—Bad news is more newsworthy than good news. An additional piquancy is added *when good news had been* expected to start off with. Nonetheless I would have expected the FT, the best newspaper in the world, to be beyond the temptation of publishing a leader (July 21) on the German economy's disappointing performance which makes pleasing reading, particularly to US policy makers, but is of dubious analytical content.

Remember the oil price explosion of December 1973? It was only in the fourth quarter of 1974 that Organisation for Economic Co-operation and Development countries' industrial production collapsed. Remember the oil price increases of the second half of 1979? OECD industrial production still moved to a new peak in Q1 1980 before collapsing thereafter. Econometric research unambiguously shows that an unexpected gain in income is first saved. When prices of raw materials are falling the wise purchasing manager delays restocking. We now have before us the first statistics on German economic performance for the month of May 1986. Is it reasonable to expect the growth stimulating effects of the first quarter's oil price collapse to be already visible? We have constantly to be aware of wishful thinking. But let's allow for the inevitable lags in the economic system to work themselves out before drawing conclusions.

In fact had you gone to the trouble of flipping through the July issue of the Bundesbank's Economic Indicators you would have found the evidence rather heavily weighted in favour of a rapid build-up of domestic demand. The most recent statistic available for the German economy, and a "leading" one at that, is for German car sales and it shows a very strong market indeed. If the Japanese are benefiting the most, this is hardly the fault of German economic policy.

Allow me to comment on the important distinction between domestic demand growth and GDP growth, so often lost sight of in the current debate. As long as domestic demand is growing in Germany, the more this demand is satisfied by imports the better for balanced expansion of the world economy. This of course means that German GDP should grow by correspondingly less. By the way German imports in volume so far this year have been rising at an annual rate of 14 per cent. How much more of a "locomotive" do you want?

Kraft Holtz,
c/o Vauxhall Motors,
PO Box 3, Luton, Beds.

Transport efficiency

From Mr B. Fish

Sir,—It is unfortunate, to say the least, that in his advertisement (July 22) describing the latest results of London Regional Transport, Dr Bright uses two completely meaningless graphs.

Ignoring the fact that there is in any case no such thing as an absolute cost per mile, both the apparent cost per mile and the miles per employee will move favourably merely by moving buses and trains around empty.

Not only therefore are the graphs potentially misleading: they also fail to tell us anything of the efficiency or cost effectiveness with which LRT resources, human or otherwise, are being deployed.

Brian H. Fish,
14 Stoke Hill,
Stoke Bishop, Bristol

Equality of the sexes

From Mr J. Lockwood

Sir,—Over the last two or three weeks the newspapers have given their usual negative reports on the pros and cons of legislated male retirement at the age of 60 years.

Living in a national community that dictates complete equality of sexes in all spheres — even in the extent of job advertisements not being able to emphasise one or other sex would be given preference owing to actual physical suitability — it is scandalous that a differential should be maintained on retirement age levels.

We are told that the cost of adjustments would be prohibitive but surely we must start somewhere.

I propose immediate action to bring the male retirement age to 60 and a date set for February, 1987. I chose this date to fit in with our tax year and secondly to give ample time if this Government does not legislate as such, for the male population between the ages of 55-64 years to vote at the next general election for any party which will propose in its manifesto to correct the situation.

Is it going to cost as much as they would have us believe and where is the burden going to fall? It is a statistical fact that a male retiring at 60 years of age can look forward to 15 years "healthy" retirement but should he go on until 65 years of age the last five years takes such a toll on his health that he can look forward to only 15 months "healthy" retirement.

Anyone of course, would be allowed to work after coming of age if he or she wished to do so but would get no extra pension in doing so, either state or private.

In my view the state would gain by the man of 60 being replaced by one at 45, he by another at 30 and he by a man in his early 20s who is unemployed and claiming benefit for himself, his wife and two/three children. Thus a total of four or five people would be brought off benefit and replaced by two short-term beneficiaries — the 60-year-old retiring man and his wife.

The point I cannot understand is that the average British male does not actively protest against this gross travesty. Our female counterparts would be chaining themselves to railings as indeed they did to get the vote and would achieve justice within 12 months.

We must not talk of reducing gradually to the age of 63 or indeed putting up the female age to meet that of the male half way but do it all and do it now!

John R. Lockwood,
23 Dunsmore Drive,
Salendine Nook,
Huddersfield

Keeping healthy

From Susan Hynes

Sir,—The report "Health Service urged to copy 'cheaper' US system" (July 21) refers to a relatively new form of health care delivery system in the US as "hospital management organisations"—HMOs. HMO does not stand for "hospital management organisation," although this title may well appeal to those who appreciate crisp dehumanised efficiency. HMO stands for health maintenance organisation, so named because the financial mechanisms involved ensure that profit is made from keeping people healthy rather than from treating their illnesses. Furthermore, many HMOs are clinic based and do not manage hospitals at all but simply contract beds in local hospitals.

Health maintenance organisation at least sounds a bit more patient-oriented than "hospital management organisation."

Susan Hynes,
30 Mauldeth Close,
Heaton Mersey,
Stockport.

Workshops in Liverpool

From Mr R. Davies

Sir,—In his article on the redevelopment of Liverpool's docklands (July 17) Ian Hamilton Fazey made mention of the New Enterprise Workshops, one of BAT Industries' small business initiatives.

The occupancy rate of the workshops averages in fact 70 per cent. not 50 per cent as stated in the article. More importantly, however, we feel obliged to correct his statement that the New Enterprise Workshops are rented out "for profit." The current position is that the workshops are operating at a loss, with BAT Industries providing the balance of the funding required on an annual basis. We would certainly like to see the workshops reaching break-even point at some time, but as their status is that of a company limited by its guarantee (New Enterprise Workshops (Toxteth) Ltd), any surplus generated would automatically remain under the control of the workshops themselves. Under no circumstances would BAT Industries stand to receive financial gain from the project, nor was this ever the intention.

R. Davies,
Batco Small Businesses,
7 Millbank SW1.

Too noisy travels

From the Vice-Chairman, Bromley Residents' Federation.

Sir, — May I add to Mr Street's list (July 24) of polluters the operators of helicopters. Whenever Grand Prix motor racing takes place at Brands Hatch, thousands of people living in Kent and South London are subjected to serious disturbances from these noisy and anti-social aircraft, often flying at very low altitudes.

During the weekend of July 12-13 there were no less than 600 movements from Biggin Hill, many of which flew low over the villages of Downe and Cudham.

The law should be changed to restrict the number of helicopter movements at such special events, to impose mandatory minimum-noise routings avoiding built-up areas, and to require planning permission for all temporary heli-pads, even for only one day.

D. A. Thompson,
21 Wood Ride,
Petts Wood, Kent.

FINANCIAL TIMES

Monday July 28 1986

Paul Hannon on Wall Street

Chips are down for computers

SIGNS OF A recovery in the industry, repeatedly forecast over recent months, have still eluded the main stocks and market watchers are being urged to buy new cathode ray tubes for their crystal balls.

Endless accusing fingers point at IBM as the culprit. Big Blue, widely considered a market bellwether but increasingly used as a single-stock shorthand for the entire equity market, disappointed investors with its recent 7.7 per cent drop in second-quarter figures.

Although the results were a genuine surprise, they were only a reflection of the level of recent corporate profitability and subsequent capital spending.

Corporate profitability for 1985 fell an estimated 11 per cent and recent data suggest that while the growth in company earnings is not improving, the pace of deterioration seems to have slowed.

The computer industry represents an estimated 17 per cent of all US capital spending and thus is exposed to the vicissitudes of actual corporate performance and the perception of future profitability.

US COMPUTER STOCKS

	profits change 2nd qtr (%)	p/e	Friday Price ($)
Amdahl	− 48	34	17⅞
Apple*	+ 345	15	34
Burroughs	+ 41	13	67⅝
Honeywell	− 21	12	67⅝
IBM	− 7.7	13	134⅛
NCR	+ 18	15	51⅝
Prime	− 13	17	19⅝
Sperry	− 44	—	75⅝
Tandem*	+ 880	27	33⅞
Wang	—	40	14⅝

*3rd quarter figures

Last week's Commerce Department data on industrial demand suggested that the small rise in orders, the first after four months of declines, might be a watershed although Mr Malcolm Baldrige, Commerce Secretary, said: "It is too soon to call this a new trend toward better growth." For what its worth, he also forecast further improvement in coming months due to lower interest rates, stronger exports and the lower dollar (making imports that much more expensive).

The Administration's ability, however, to report on historic growth, let alone future expansion, suffered a blow early in the week when it upgraded its first-quarter rise in gross national product from 2.9 per cent to 3.8 per cent. The bond market was the first to take fright at such a wide discrepancy and on the fear that any current data is also liable to substantial fine tuning.

The summer is traditionally a low point for the computer industry and any increase in demand is not likely to manifest itself until September.

"Technology stocks peaked in mid-1983" says Mr Stephen Dube of Shearson Lehman Brothers "and since then have underperformed the market." In June, for example, the S&P 400 rose 0.4 per cent but a representative selection of high technology stocks fell 8.9 per cent.

From IBM at the top to the humblest personal computer maker, the entire industry has been ravaged by cut-throat competition, subsequent widescale new product innovation, falling prices, rising inventories of "outdated" models and an increasing foreign presence.

Against such a backdrop of creative friction, last week's tally of winners and losers included Wang's $800,000 rebound into the black after a $190m loss in the comparable period. Like virtually all other groups reporting results, revenues were up – by 12.8 per cent. The company identified investment in "new strategic communications and service ventures" as the reason for low margins. The Massachusetts microcomputer maker showed a week-on-week stock market gain of $1⅜ to $14⅛.

Prime Computer turned in a 13 per cent drop in the latest quarterly earnings to $11.4m but Mr Joe Henson, president and chief executive officer, cited a surge in new orders that was not included in the results. What interested Wall Street as much, however, was the concurrent announcement to buy back up to 5 per cent of the group's outstanding common stock in the open market, approximately 2.4m shares. Prime finished the week with a net rise of $2⅜ at $19⅝.

If times are considered bad for the computer makers, they are even worse for chip manufacturers. Motorola is the only large chip maker that is showing growth (95 per cent increase in earnings per share for the second quarter). Although the much smaller Monolithic Memories scored a jump in earnings per share from 2 cents to 17 cents.

But the rest of the industry can be considered a backwater with many stocks trading at or near their lows for the year. An upturn is unlikely before the fourth-quarter. Cold comfort and hard days ahead.

Ivo Dawnay examines President Sarney's ambitious development plan

Outlook unsettled for Brazilians

PRESIDENT Jose Sarney's emotional rallying call to the Brazilian nation last Wednesday was accompanied by a tumultuous downpour – the first rain the federal capital had seen since April. It is difficult to know what to make of the symbolism.

Certainly, the President's wide-ranging development programme represents some kind of watershed for Brazil, its notoriously uneven distribution of wealth, its embryonic democracy – and more immediately, its current economic strategy.

But, whether the programme's shower of ambitious growth targets and objectives falls on stony or fertile ground will depend to a large extent on the second, less palatable part of Mr Sarney's message – the urgent need for a painful squeeze on the two greatest badges of Brazilian middle-class prestige, the car and foreign holidays.

The promise of jam tomorrow in return for swingeing price rises of up to 30 per cent on cars, fuel, airline tickets and hard currency has not gone down well in the affluent suburbs of São Paulo and Rio de Janeiro. Nor does the President's promise to raise national living standards to match those of Mediterranean Europe cut much ice with those lucky few living on a par with Beverly Hills.

But the marriage of the Government's upbeat three-and-a half year development plan with a series of credit-squeezing and investment-promoting measures was not simply a cynical act of political camouflage. Some sort of fiscal package was clearly an essential prerequisite for the achievement of Brazil's longer term goals as leaks in February's price-freezing, anti-inflationary cruzado plan began to feed through to the economy from an insatiable rise in consumer demand.

The question preoccupying the economists' calculators, Brazilian industry, and most of all, the political opposition is whether the programme can be made to stick.

In choosing the course he did, the President has used up a considerable amount of the remarkable wave of goodwill that in February greeted the original anti-inflationary cruzado plan. With elections in November, the political stakes have risen markedly.

In essence, the aim of the plan's adjustment is twofold: first, to reduce the boom in consumption, currently up on last year by 25 per cent and more in some regions, and, secondly, to restore investment and reverse the massive drain on savings that has fuelled the spending spiral.

If justification is necessary, it comes in the 51-page plan targets which spell out a programme for national growth that would be laughably optimistic in almost any country but Brazil. Among some of the goals included are:

- A sustained growth rate of 6 per cent a year, raising exports of manufactured goods by an average of 20 per cent annually until 1989.
- The creation of 6.6m jobs.
- A formidable increase in energy production, lifting electricity output by 32.5 per cent to 57,500 MW and oil production from its current 40 per cent of national demand to 90 per cent.
- A 20 per cent expansion in the national railway network.
- A series of wide-ranging social programmes ranging from free milk, schooling and health schemes to mass retraining projects.

"The objective," President Sarney concluded, with admirable economy, in his presentation last Wednesday night, "is a rich Brazil."

The so-called fathers of the cruzado plan, including 34-year-old US-trained Professor Persio Arida, now confess that although some account of the impact of an end to the inflationary illusion of high interest rates had been made under the cruzado plan, it was not enough.

"We expected a spending boom as credit for personal consumption had increased by 50 per cent in real terms," he says. "But the real surprise was the decline in savings."

A preliminary stab at cutting credit was made last month, when Mr Dilson Funaro, the Finance Minister, issued orders to the banks and credit agencies to reduce personal lending about 30 per cent by September. But, before the ink was dry on the measures, it was clear that further steps would be necessary.

Last week's package was, however, more than just a credit squeeze programme. It added the altogether more longsighted element of creating a national development fund, a holding agency for new resources due to be generated, in part, through a uniquely Brazilian cash-raising system of "compulsory loans."

The loans – a 30 per cent surcharge on new cars and 28 per cent on fuel – are paid on the retail price at point of sale, and, while accumulating interest, are only repayable in the form of shares in the fund at the end of three years. Even then, the government will not redeem the shares, but will simply allow holders to negotiate them privately through the stock exchange.

This investment fund, is due to be enhanced by the mandatory inclusion of a full 30 per cent of all private pension fund capital. It should raise a total sum equivalent to some 2 per cent of gross domestic product annually. This is expected to total up to $20bn of new money for investment until the end of 1989.

Coincidentally, this sum is roughly equivalent to Brazil's projected outflow of interest due on foreign debt. As one embittered motorist put it: "The Government has decided to get the middle class to pay the foreign banks on its behalf."

A significant proportion of the fund's resources, under the ultimate control of the Finance Ministry, is expected to be used to capitalise the hopelessly indebted public sector – 67 per cent of whose working capital is borrowings – in debt equity swaps. This should restore several major state sector companies to profitability, thereby releasing substantial sums for investment in crucial projects.

Besides the development fund, the package also establishes new taxes and a series of measures to stimulate investment. These include the creation of a new floating rate savings instrument, an increase in capital gains taxes on short-term funds and a reduction on those for longer-term investment. There are also taxes on foreign travel, dollar purchases and the commodities markets.

Most Brazilian economists appear to like the shape of the plan. Professor Celso Martone, the highly regarded University of São Paulo economist, expects the plan to boost business confidence in capital investment, but is critical of the earlier "loose" monetary policy of the government.

"At present, consumption is cheap. Real interest rates, if you take away anticipated inflation and tax, are about 4 per cent to 6 per cent," he says. "A tighter policy will have to be implemented in the next few months."

Professor Arida and his colleagues cheerfully allow criticism to pass over them. They point out that even a cursory reading of the Brazilian economy's runes present a conjuncture of indicators that would be the envy of many developed economies: a projected trade surplus in visibles of possibly $13bn this year, still in the black after the repayment of foreign debt interest, growth between 6 and 8 per cent, and good corporate profit figures.

"There's no case in history – not even the Weimar Republic – where a country paid 4 per cent of its GDP in debt repayments" points out Professor Arida, whose current bedside reading is, perhaps significantly, Keynes's How to Pay for the War.

For the politicians in President Sarney's Democratic Alliance coalition, there are other calculations, however. With state and congressional elections in November the political health of the senior partner, the Brazilian Democratic Movement Party (PMDB), could be a great deal better.

Smurfit to buy US group for $1.16bn

BY WILLIAM HALL IN NEW YORK

JEFFERSON SMURFIT Corporation, the fast-growing US arm of the Irish packaging group, is taking over Container Corporation of America (CCA), one of the biggest US packaging companies, in a $1.16bn deal which will more than double its presence in the world's biggest packaging market.

JSC/MS Holdings, a newly-formed company owned equally by Jefferson Smurfit and the Morgan Stanley Leveraged Equity Fund, which is controlled by one of New York's oldest investment banks, has signed a definite agreement with Mobil, the second biggest US oil company. They have agreed to acquire CCA, which last year had sales of $1.7bn and employed 18,400 staff.

JSC/MS Holdings will pay Mobil $700m in cash and assume approximately $457m in CCA debt and other liabilities.

The acquisition will be financed mainly through $600m in bank borrowings and the sale of approximately $400m in subordinated debt.

Jefferson Smurfit and Morgan Stanley say they have firm commitments from a bank syndicate led by Bankers Trust to provide up to $700m in financing for the acquisition and ongoing operations.

Jefferson Smurfit entered the US market in 1974 and has grown rapidly through acquisition. It now operates more than 90 mills and facilities in the US. In the first six months of 1986 it earned $10.6m on sales of $501.2m.

However, the latest move overshadows its earlier acquisitions and transforms the company, which is 78 per cent controlled by its Irish parent, into one of the biggest packaging groups in the US.

Mobil acquired CCA in the mid-1970s when it was trying to diversify into non-oil related businesses.

Brendan Keenan adds from Dublin: Smurfit is expected to follow its usual pattern of severe cost cutting, including widespread redundancies, among CCA's 18,400 employees.

Mobil has invested $800m in CCA in recent years. Mr Howard Kilroy, Smurfit's chief operations director, said: "The majority of the assets are less than five years old. They are underperforming by any stretch of the imagination."

The purchase may also give Smurfit its long desired move into Europe. CCA has plants in Spain, Holland and Italy and Smurfit has an 18 month option to purchase some of these plants.

Foreign bank assets decline in Japan

BY IAN RODGER IN TOKYO

PROFITS of foreign banks in Japan rose sharply last year on the strength of foreign exchange and bond trading business. But their return on assets remains very low – an average 0.19 per cent in the year to March 31, 1986 – and the total assets of foreign banks in Japan actually declined, reflecting the difficulties foreigners have in cracking Japanese lending markets.

The latest compilation of foreign bank results in Japan by accountants Peat Marwick Mitchell is likely to spark fresh complaints about unfair trade in banking.

At a time when Japanese banks and securities dealers are taking major shares of the US and European lending markets, non-Japanese banks have managed to win only about 2 per cent of the Y265,000bn ($1,700bn) Japanese market available to private sector banks.

The figures confirm statements from many foreign banks that they are retreating from lending markets because of the difficulty of finding good Japanese clients at reasonable terms. Bank of America, for example, has cut its assets by 14 per cent between April, 1985 and March 1986, Citibank by 6 per cent.

The leading (state owned) French banks continued to expand, showing a Japanese-style disregard for poor results in the short term. All seven French banks, except UBAF, had below average rates of return last year in Japan and two, Société Génèrale and Crédit Commercial de France, ended in loss.

Three of the big four British banks made operating losses last year in Japan. Barclays made a return of 0.18 per cent on average assets of Y171.9bn.

Average profits before tax and extraordinary items of the 77 foreign banks in Japan rose 106 per cent to Y395m in 1985-86. The biggest gains were made by those banks, mainly American, that have taken advantage of the liberalisation of trust banking in the past year.

FOREIGN BANKS IN JAPAN

TOP 10 BY PROFIT*

	Bank	Yen bn
1.	(4) Citibank	3,69
2.	(3) Bankers Trust Co	2,98
3.	(22) First Int. of Calif.	2,15
4.	(17) Toronto-Dominion	2,08
5.	(24) Bank of America	1,92
6.	(1) Chemical Bank	1,74
7.	(6) Morgan Guaranty Trust	1,70
8.	(2) MFRS Hanover Trust	1,67
9.	(74) First Chicago	1,28
10.	(7) Korea First Bank	1,12

TOP 10 BY TOTAL ASSETS

	Bank	
1.	(3) Citibank	1,078
2.	(2) Banque Nat. de Paris	1,009
3.	(1) Société Générale	936
4.	(4) Crédit Lyonnais	800
5.	(7) Banque Indosuez	565
6.	(5) Chase Manhattan	562
7.	(6) Bank of America	555
8.	(12) Banque Paribas	446
9.	(15) Chemical Bank	431
10.	(10) Union de Banques Arabes	392

*Before tax and extraordinary items 1984–85 ranking in brackets.

Source: Published financial statements of foreign bank branches in Japan at March 31 1986, Peat, Marwick, Mitchell & Co. Tokyo.

UK engineers make job offer

Continued from Page 1

determine "a pattern of shift working to suit the particular needs of the establishment."

The employers' federation has said that individual companies among its 5,000 members will not have to abide by a national agreement cutting hours unless workers at company level implement the flexibility clauses in a new national agreement. The union draft accepts this.

Both sides described the latest round of talks held last week as constructive. They have agreed to speed up the meetings in an attempt to reach final agreement.

However, there are still a number of obstacles in the path of a final deal.

World Weather

		°C	°F			°C	°F			°C	°F			°C	°F
Ajaccio	F	27	81	Dubrovnik	S	27	81	Malta	S	32	90	Rhodes	S	28	82
Algiers	F	29	84	Edinburgh	R	16	61	Manchester	C	18	64	Rio de J'o	—	—	—
Amsterdam	S	20	68	Faro	S	28	82	Manila	—	—	—	Rome	F	28	82
Athens	S	29	84	Florence	S	31	88	Melbourne	C	10	50	Salzburg	S	22	72
Bahrain	—	—	—	Frankfurt	C	24	75	Mexico City	—	—	—	San Francisco	C	12	54
Bangkok	—	—	—	Funchal	F	21	70	Miami	F	25	77	Seoul	C	27	81
Barcelona	F	26	79	Geneva	S	26	79	Milan	S	29	82	Singapore	F	24	75
Beirut	—	—	—	Gibraltar	S	23	73	Montreal	S	18	64	Stockholm	F	23	73
Belfast	C	18	64	Glasgow	C	15	59	Moscow	F	25	77	Strasbourg	F	25	77
Belgrade	F	26	79	Guernsey	C	17	63	Munich	F	24	75	Sydney	F	14	57
Berlin	F	23	73	Helsinki	S	24	75	Nairobi	C	18	64	Taipei	—	—	—
Biarritz	C	22	72	H. Kong	S	31	88	Naples	F	32	90	Tangier	S	27	81
Bombay	C	28	82	Innsbruck	F	25	77	Nassau	—	—	—	Tel Aviv	S	32	90
Bordeaux	F	25	77	Inverness	F	18	64	New Delhi	—	88	—	Tenerife	S	26	79
Brussels	F	23	73	Islamabad	—	—	—	New York	C	23	73	Tokyo	F	29	84
Budapest	C	23	73	Istanbul	S	26	79	Nice	S	27	81	Toronto	C	20	68
B. Aires	—	—	—	Jakarta	—	—	—	Nicosia	—	—	—	Tours	F	28	82
Cairo	S	38	100	Jersey	F	20	68	Oporto	S	23	73	Valencia	S	27	81
Cape Town	S	21	70	Jo'burg	S	15	59	Oslo	D	18	61	Venice	S	27	81
Caracas	—	—	—	Lima	—	—	—	Paris	F	24	75	Vienna	F	23	73
Casablanca	F	23	73	Lisbon	S	26	79	Peking	—	—	88	Warsaw	F	19	6
Chicago	S	21	70	London	F	20	68	Prague	F	22	72	Washington	C	24	75
Cologne	S	21	70	Los Angeles	C	17	63	Reykjavik	S	13	55	Zurich	S	28	82
Copenhagen	C	19	66	Luxembourg	C	20	68								
Corfu	F	30	86	Madrid	S	28	82								
Dallas	S	26	79	Majorca	S	28	82								
Dublin	S	17	63	Malaga	S	25	77								

Readings at mid-day yesterday:
C–Cloudy D–Drizzle F–Fair Fg–Fog H–Hail R–Rain S–Sun Sl–Sleet Sn–Snow T–Thunder

Howe warns Pretoria

Continued from Page 1

ment. Mr Tambo has agreed in principle to meet Sir Geoffrey, although not until after the mini-summit.

The Foreign Secretary also hopes to persuade the frontline states, such as Zambia and Zimbabwe, to exercise their influence with the ANC to end violence and begin a dialogue with Pretoria once President Botha agrees to release Mr Mandela, despite the negative attitude which these countries have so far adopted towards his mission.

The weak link in Sir Geoffrey's plan is that all the principal black South African opposition leaders except Chief Gatsha Buthelezi, who heads the Zulu-dominated Inkatha movement and whom he will meet today, have refused to see him.

It was only in Botswana, Swaziland and Lesotho, all states whose economies are entirely dependent on their powerful South African neighbour, that Sir Geoffrey found any real sympathy and support for his mission.

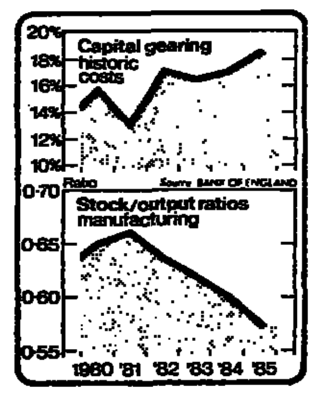
Nancy Dunne in Washington writes: The Reagan Administration this weekend continued to back away from its strong opposition to economic sanctions against South Africa as momentum for strong action grew in Congress.

Mr Chester Crocker, the assistant secretary of state who is to meet Sir Geoffrey this week in London, said yesterday that the President was considering renewing the comparatively mild economic sanctions imposed last year, which are scheduled to expire in September.

THE LEX COLUMN

Gearing up at the Bank

The reinforcement of company balance sheets over the past few years is perhaps one of the most notable, if indirect, achievements of Thatcherism. Having gone into the recession overgeared, and rather careless of cash, industrial companies learned (in some cases re-learned) the virtues of working capital control. Chairmen had been used, in the 1970s to wonder if they were carrying enough debt to give the shareholders an adequately geared return on their investment; in the early 1980s their hard-pressed finance directors laboured to pay down an often crippling burden.



The easiest discipline to learn was slower payment of suppliers, followed by a squeeze on stocks. Stock pipelines that emptied in 1981 have never been refilled as they would have been in previous recovery periods. Although there were limits to the amount of debt that could be eliminated by better financial controls, gearing ratios could also be improved by adding, if only in appearance, to the equity side of the balance sheet. Many a dark satanic mill found itself being revalued as a means to stave off breach of loan covenants (sometimes, indeed, as a prelude to eventual closure).

With the recovery of profits, moreover, it was possible to enter a heady spiral in which rising earnings and stock market ratings made it possible to supplement retained earnings with rights issues.

Little wonder that the City's main sector balance sheet agree that net gearing has fallen by between 25 and 50 per cent since the late 1970s; capital gearing, according to the published accounts of listed companies, seems to be historically low, at around 20 per cent. Whole strands of industry that were highly geared in 1980 – such as the textile sector – are now boasting net cash. Cash mountains, piles and war-chests have become commonplace.

It is rather strange, therefore, to find that official statistics tell a different tale, in which net gearing has steadily moved – not down, but up. Some of the same things are supposed to have happened, like the shedding of stocks, but according to the Bank of England's latest quarterly bulletin, capital gearing has risen by nearly a third in the last five years. What has gone wrong?

Conceivably, the differences are no more than statistical. The stockbrokers' tabulations work from accounting data and concentrate only on the larger companies. The Bank, following the Central Statistical Office, has built up its picture of capital employed in industry by accumulating all reported capital investment over time, net of scrapping and depreciation. So the conflicting views have been put together in completely different ways. And it is quite possible for the official version of net assets to have been held down by falling estimates of the capital stock, at the same time as company accounts were showing an increase in equity through revaluations, retentions, and rights.

Yet in theory, the two procedures should give consistent results, making the odd allowance here and there; two ways of measuring the same thing should not diverge for years on end unless at least one set of numbers is at fault. That, however, is more than likely.

It is something of an embarrassment that official calculation of the company sector's financial surplus has been completed in recent years by an "unidentified" balancing item that is as large as the sum of identified transactions. On the other hand, creeping financial creativity has without doubt been one factor in the strengthening of published balance sheets.

But suppose that both sides are, by their own lights, giving a reliable picture of events, and that there is reasonable agreement about the gross level of borrowings. There is still a possibility that the difference on net gearing can be traced to different conventions on the netting of cash and investments against debt; the Bank has noticed the acquisition by companies of more financial assets, but has preferred, in its role as guardian of the monetary aggregates to deny that any more than a small fraction is bought for arbitrage purposes. Perhaps the Bank maintains a correspondingly generous estimate of net debt.

If there is no problem about the level of net debt, however, that raises an interestingly sinister question: what has happened to the equity that companies claim to have but which the authorities cannot find? It would be an ironic if not unexpected twist in the story of free-market government, if industry had been quietly voting with its balance sheet footings, shifting its equity base off-shore, and gearing up at home.

Underwriting rules

If the jury is still out on the issue of gearing, the Bank of England deserves a couple of cheers at least for its consultative paper on banks' large exposures. It sensibly recognises that underwriting bond or equity issues should not be treated the same as making loans to Mexico, and banks will be able to exceed the maximum they would normally be able to extend to one borrower above 25 per cent of their capital base.

As it is not unusual for an underwriting commitment to be larger than a merchant bank's entire capital this decision is rather important if the British banks are to compete with the big foreign houses.

The thinking is that the credit risk on primary issues is small compared to the market risk, and even 90 days after the payment date, when the over 25 per cent concession runs out, it should not be much larger. Indeed the 90 days grace seems to be generous. Any underwriter left with stock after that period is probably sitting on a sizeable loss. What seems genuinely to have been left to discussion is the distance above 25 per cent they will be able to go, and the rules which will apply. No doubt the banks will be pressing for as much as they can get. But then the supervisors must save some of these impetuous bankers from themselves.

FINANCIAL TIMES SURVEY

Water

The water industry has reached a turning point brought about by the Government's attempts to privatise the ten regional water authorities. Although the proposed flotation has been shelved, they have been obliged to rethink all their attitudes

A target for change

THE WATER industry will never be quite the same again. It was used to being taken for granted, providing the most essential of all services quietly and efficiently. Only when a double decker bus fell down a collapsed sewer, or standpipes came out on the street corner during a drought, did water supply reach the headlines.

Yet in the last 18 months the subject has made a considerable impact on the national stage, starting with a furious row over the Treasury's insistence that water charges should be increased by well above the rate of inflation in order that fierce financial objectives could be met. The authorities would have preferred to keep charges down.

Then, virtually out of the blue, came the proposal to privatise the industry. It seemed an unlikely candidate given its position as monopoly supplier of an absolute necessity. But there were obvious attractions for the Government.

The 10 water authorities, with assets of £27bn, could raise between £5bn and £7bn as part of a privatisation programme that was running into difficulties elsewhere. Water had become too tempting a target to ignore.

A White Paper was published last January and the authorities' leaders, initially hostile, sceptical or agnostic, with the notable exception of the enthusiastic Mr Roy Watts, chairman of Thames Water, accepted the prospect as a political fact.

The intention was to introduce a Bill at the beginning of the next parliamentary session in November, transforming all 10 authorities into public limited companies, initially with a 100 per cent Government shareholding. The Bill was due to become law by next July and the authorities, or water services plcs, would be sold off individually or in groups from the end of 1987.

LOCAL WATER Purely yours

New logo adopted by the 28 statutory water companies in England and Wales. The companies deliver 600m gallons of water every day to a quarter of the UK population—about 12m.

But in another shock for the industry, Mr Nicholas Ridley, Environment Secretary, suddenly announced last month that all bets were off. There was simply not enough time to get the legislation into shape.

Since then there has been a curious mix of disappointment and relief in the industry and a questioning of where its future now lies. It is in a kind of limbo, continuing preparations for privatisation but not knowing whether it will ever take place.

The prospect of flotation and the need to prepare for it to attract investors dominated the thoughts and actions of the authorities for months and there is now, inevitably, a feeling of deflation.

"It is not going to be easy to re-engage," one industry leader admits. "Everyone has been going flat out and we are looking at exciting new horizons. We now have to accept we will remain in the public sector for the foreseeable future."

Equally affected by the turmoil but not directly involved in the privatisation plans were the 28 statutory water companies which supply about a quarter of the UK population. They operate within strict financial constraints and were not seen by the Government as a blueprint for the privatisation of the authorities.

What went wrong? The answer lies in several areas, political, financial and practical. First, there was lack of time. With hindsight, Mr John Gunn, head of the water directorate at the Environment Department, was given an impossible task to plan and draft the most complex and contentious of privatisation Bills in a matter of weeks.

Unlike the gas industry, water industry legislation has never been consolidated. It is spread over dozens of acts and statutes and the proposed Bill would have needed more than 200 clauses.

Second, there were too many unresolved crucial issues—covering regulation of the privatised authorities and their powers to regulate other people; potential abuse of monopoly power; guarantees on the protection of the environment; whether flood protection and sea defence should be left with the privatised authorities or kept in the public sector; and pricing policy.

"Every time we thought we had solved one issue, two more took its place," says one participant in the negotiations.

Third, the political climate was looking ominous. The case for privatisation, whether it be strong or weak, had simply not been sold effectively. The Alliance parties as well as Labour and the trade unions were strongly opposed. The natural reaction of people when asked by opinion pollsters about privatisation of such an essential monopoly, was one of hostility or cynicism, and this message got through to many Conservative peers and MPs.

The passage of such a complex Bill through Lords and Commons towards the end of a Parliament would have been fraught. It would have provided ideal ambush and filibuster territory for the Bill's opponents.

Fourth, there were potential legal problems over whether the Government had the right to sell an industry it had paid the local authorities no compensation for in 1973, and over a court case brought by Nalgo, a water industry trade union, against Thames for spending money on furthering the cause of privatisation before Parliamentary authority had been given.

Way in the future lay details of the writing off of debt to make the authorities more commercially viable—between them they owe £5bn in long-term debt, mostly to the Government, and this costs them £500m a year in interest charges.

Also still to be decided was the method of flotation. The Government's initial proposal was to sell the authorities off individually from the end of 1987, probably starting with Thames, the biggest and most profitable (net profits of £150m in 1985-86 on a turnover of £501m).

What the privatisation attempt has done, by common consent, is to continue the trend in the industry towards increased profitability and greater efficiency, caused partly by sharper management and partly by Government policy.

Much of the tension between the authorities and the Government has come from the imposition of current cost accounting methods linked with the imposition of punishing financial targets.

These have had the effect of driving up charges more than the water authorities wished, as well as bringing about dramatic gains in efficiency and productivity. Manpower has dropped from more than 62,000 in 1981 to under 51,000.

The Government's aim of making the water authorities self-sufficient and therefore no burden on the public sector borrowing requirement has seen a shift from 1974 when the industry borrowed almost as much as it invested, to 1980 when it was 60 per cent self-financing, to 1986-87 when it will finance 90 per cent of its borrowing.

Total investment in the industry will be more than £900m next year, a figure the Government regards as adequate although it is 13 per cent less than the industry sought. Turnover is £2.3bn.

The rate of return on assets is set at 1.6 per cent for 1986-87 based on the CC method of accounting, and this is up from 1 per cent in 1984-85 and 1.4 per cent last year.

The pace of introducing new technology has quickened, and the industry has been remarkably free of industrial disputes. What the industry now wants is to ensure that these trends continue, and to develop interests away from the core activities of water supply and sewage treatment.

In 1985 the economic value of water industry activity, measured by combined spending on capital works, operational and ancillary activities, was about £2.5bn. This gives it a significant place in the UK economy as a whole.

The range of activities is also much wider than is generally realised. As well as water supply and sewage treatment and disposal, it involves coastal protection, flood alleviation and land drainage, environmental protection, recreational amenities including fishing, and overseas consultancy work.

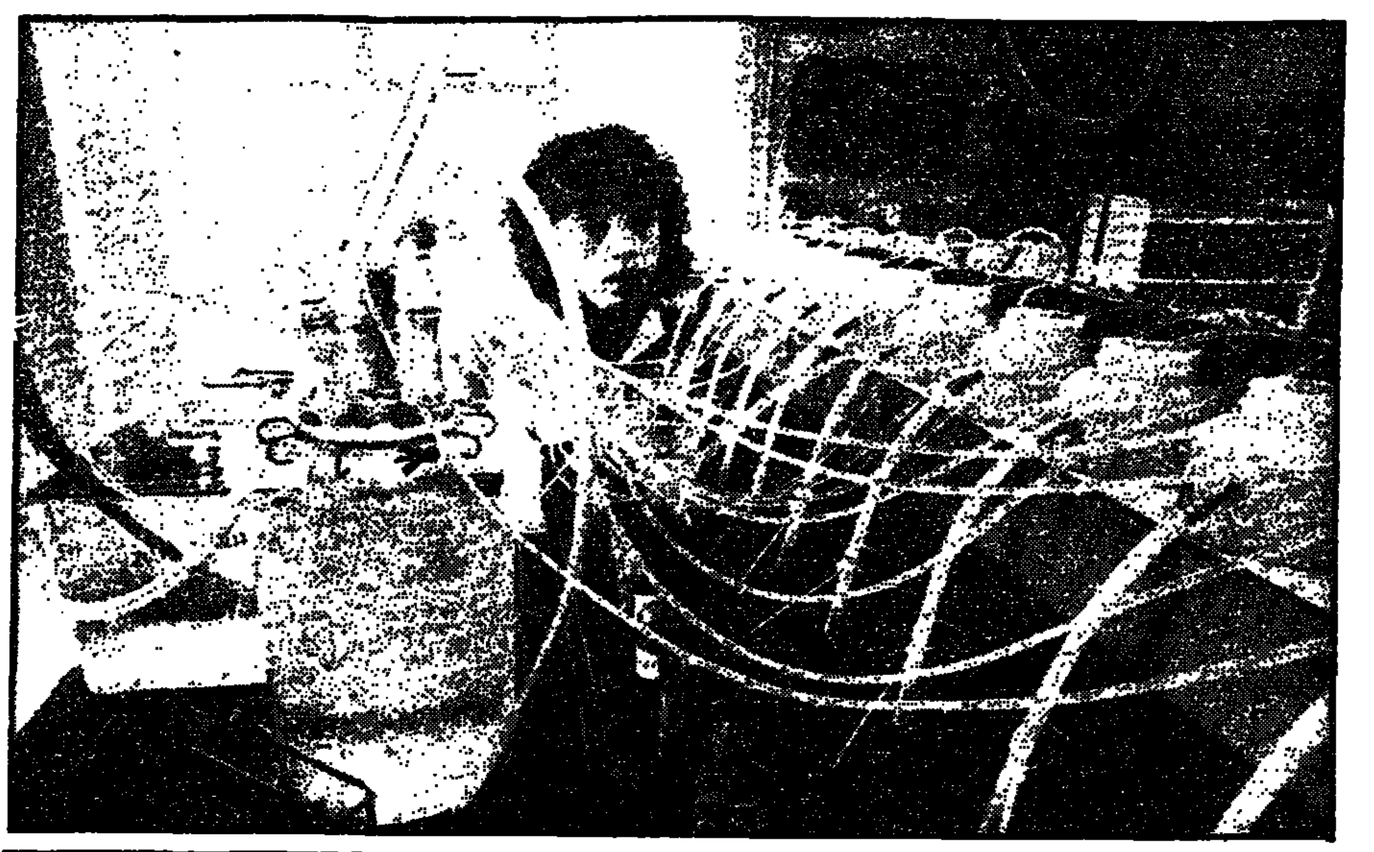
There is also the issue of domestic metering, advocated by some in the industry but opposed by others. Substantial trials are to be held in the next few months to see how feasible national metering would be.

A new basis for charging *would have to be found in any* event if the Government goes ahead with its plans to abolish local rates, on which water charges are based, and to substitute a community charge or poll tax after 1990.

The industry now has little option but to await the outcome *of the next election* before it knows where its future lies. If Labour wins, or if the Alliance holds the balance of power, there will be no question of privatisation.

Even if the Conservatives retain an overall majority, it is by no means certain that water privatisation would be high on the political agenda. What the last few months have confirmed is that water is, as everyone knew, a unique commodity that needs special treatment.

Richard Evans



Biologist at work at the Water Research Centre. The wide range of activities in which the industry is involved has necessitated continuous programmes of study

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Leisure

Development geared to attract tourists

KIELDER WATER, in Northumberland, the largest artificial lake in Western Europe, would be an embarrassing failure if it were not such a conspicuous success.

It was conceived in the 1960s to cope with a surge in demand for water in the North East of England—a demand that never materialised due to the sharpness of the region's industrial decline. Now Kielder serves mainly as a sport and recreation area of distinction.

Northumbria has always been beautiful. But its northermost reaches have been best known down the years as a wild and remote place. Kielder, with its highly developed water sports and camping facilities, not only adds to the attractiveness of the scenery; crucially, it attracts paying customers.

There is the Matthews Linn Fishing Centre, the Leaplish Recreation Centre, the Whickthorpe Cruiser Base and whole stretches of open water, ideal for everything from idling to water-skiing. Development is continuing every year, and the lake and its surroundings—including the massive Kielder Forest—are already among the prime tourist attractions of the North.

Of course, Kielder Water also has a job of work to do. It is the key man-made resource of a regional water grid created by the Northumberland Water Authority and, as such, helps provide consumers throughout the North East with their daily water supplies.

It feeds into the River Tyne and can transfer water through a pipeline and tunnels to the Wear and the Tees. Water from Kielder Water has even been exported by tanker to the thirsty towns of the Arabian desert.

Yet without the tourist and recreation industry that has grown around it, Kielder would be dangerously close to being a white elephant. The lake was completed at considerable expense in 1982, and the gap in the North East's industrial prospects between the optimistic 1960s and the painful 1980s is acute. Recreation, intended to be a peripheral activity, has become very much Kielder's stock-in-trade.

Is Northumbria any the worse? The answer must be no. A superb water infrastructure has been created, capable of meeting practically any future growth in demand, and in the meantime Northumbria has a new recreational resource, providing scores of jobs and pleasure for thousands. It was not what was intended, perhaps, but the benefits remain.

Elsewhere in England and Wales, examples abound of sport and recreation amid the aquatic environment. Water authorities are highly conscious of their duty to provide access to rivers, lakes and reservoirs. They are equally aware of the need to conserve the landscape and protect the wildlife that flourishes within it.

The one constraint, as far as the authorities are concerned, is that the public should neither foul the water nor intrude upon essential installations.

Mr Tony Ellis, of the Water Authorities Association, is heavily involved in the recreation and conservation end of the association's work. He maintains that the first duty of a water authority is to ensure a continuing supply of pure, pollution-free water, everywhere, from streams to river estuaries.

Fish, he says, are the litmus test. If they can survive and thrive—as they have begun to do in recent years in the lower reaches of the Thames—then, clearly, disaster has not struck.

All water authorities look after large areas of the landscape. They control whole streams and rivers. Some—as in the North West, Yorkshire and Welsh Water—are responsible for substantial catchment areas around reservoirs; others, like Anglian Water, are in charge of lengthy stretches of coastline. They are each engaged in conservation.

Thames Water has an enviable reputation for environmental purity, gained primarily through its restoration of life to the Thames itself. Such, indeed, has been its resulting fame that the Indian Government this year gave Thames a contract to clean up the Ganges.

Yet while Thames undoubtedly has toiled hard to restore the health of its primary resource, it has run into local difficulties elsewhere. Its plan to replace the existing London water supply network with a revolutionary ring main means that the New River, built in the early 17th century to convey "sweete waters" from Hertfordshire to Stoke Newington, will be abandoned.

Conservationists are outraged. they fear that the New River, together with its associated reservoirs in North London, will be sold off to the highest bidder and used for development purposes. Thames has given assurances that it will sell only to "sympathetic" bidders. Not everyone is satisfied.

The authorities themselves are worried about the awesome responsibilities they sometimes have in relation to the preservation of Britain's coastline. Anglian water, for example, is deeply concerned about the steady erosion of the Lincolnshire coast by insidious waves that bore into the cliffs and undermine even specially-constructed sea defences.

Millions of pounds are already being spent by Anglian in a bid to stem the erosion, but more is needed. Only the Government, it argues, can come up with the necessary funds. The Government, while admitting the "urgency" of the case, continues to review the situation.

All 10 of the large water authorities—and a number of the small, statutory water companies as well—are striving each year to maintain a balance between safe, clean water and the desire of the public to visit watery places.

Pollution is an unending problem. In parts of the country, notably the industrial heartlands of the Midlands and the North, factories have for years spewed chemicals and other impurities into rivers and streams. More recently, at least since the end of the Second World War, these dirty factories have been joined by dirty agricultural practices.

Silage, which leaches through farmland into the water table, along with cow dung and excess fertiliser, finds its way into rivers in quite concentrated form, causing many to decline at an alarming rate, so that the most seemingly idyllic of landscapes can often be chemical killing fields.

The National and Local Government Officers' Association (Nalgo), which is opposed to privatisation, argues, among other things, that the environment and water quality of England and Wales would come under threat if the industry were to be denationalised.

Nalgo maintains that passing on the responsibility of maintaining water, sewage and environmental standards to private bodies "which are found to be primarily motivated by making profits rather than the public interest," entails grave risks.

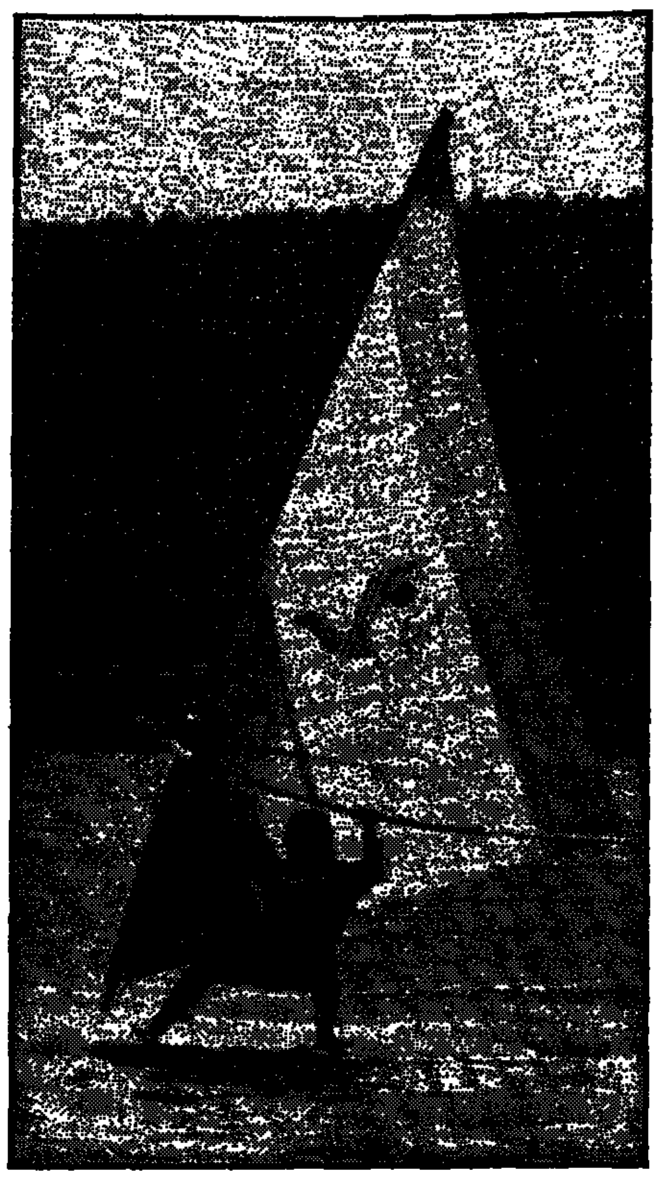
It claims that sewage treatment has been seriously underfunded in recent years (by publicly-owned authorities), leading to an increase in fouling of premises and pollution of rivers, and says that under a privatised system this is likely to worsen.

The Water Authorities' Association does not agree. While not speaking for privatisation as such, it makes the point that pollution control is a central feature of water supply that could not be reduced under privatisation. Moreover, it points out, private authorities would be bound by statute to the protection of the water in their charge.

The problem lies with industry and agriculture, and the cure is a matter for legislation. In the meantime, authorities have done much up and down the country to raise standards and are devoting themselves, in co-operation with local authorities and private enterprise, to the development of the sporting and recreational potential of rivers and reservoirs.

Most developments are an attempt to harmonise water collection and the enjoyment of water. Few are as single-mindedly recreation-centred as Kielder Water. With government help in the future, the effort made is likely to bear further fruit.

Walter Ellis



Windsailing on Kielder Water. A once remote area now draws paying customers for a wide range of leisure pursuits

Pricing policy

Demand for assessment

PRICING IN the UK water industry used not to be contentious. The average water bill, for both industry and the private consumer, was small and bore little comparison with the cost of gas and electricity.

Today, that situation is changing. Not only is the industry obliged to step up investment in infrastructure but the Government has imposed new financial targets which oblige the 10 authorities in England and Wales to push up their charges far beyond the rate of inflation.

As charges have risen, the demand has grown for a fairer means of assessment of who has used what. The notion that water should be costed in relation solely to the rateable value of the consumer's property is almost universally rejected and is set to be replaced by variable tariffs and metering.

The idea of metering is nothing new. Some authorities have been encouraging the idea for years, and every household and commercial user has the right to demand that a meter be installed. Even so, the fact is that most premises are unmetered, and the cost of installing meters throughout the land has been likened to that of converting homes to North Sea gas in the 1960s.

Nor is that the end of the matter. Meters as presently installed are mechanical objects belonging to the steam age. They leak and are virtually incapable of registering small throughputs of water, so that consumers tend to be undercharged. Moreover, they can only be read by visiting inspectors, and when the householder is out an assessment is made that is frequently incorrect.

In the electronics age, what the industry requires is the capacity for remote reading, preferably as part of a unified system also used by the gas and electricity boards. The technology already exists. A "black box" would be installed in each home or commercial property that would monitor water (and gas and electricity) accurately and relay the information to a central computer. Charges for each utility would be based on black box readings.

For the customer, a black box meter would have several advantages: he would be charged only for what he used and he would be able to decide which of a number of available tariffs to employ for a specific purpose. For example, a washing machine could be made to come on in the middle of the night, when both water and electricity charges would be cheapest.

It is not generally realised that there are water surges like electricity surges. For example, on warm summer evenings the garden sprinklers come on together at dusk, while during the commercial breaks in "Dallas" half the nation appears to go to the lavatory.

Some work remains to be done on the black box system, and the installation cost of a network, involving either new cabling or a link-up via telephone wires, plus the meters themselves would be considerable.

Last year, a joint government/water industry committee on metering, headed by Mr Roy Watts, chairman of Thames Water, said that metering could reduce average domestic water consumption by some 12 per cent. The report argued that the present system of charging, based on rateable values, gave no incentive for consumers not to waste water, for example on over-watering lawns.

WATER AUTHORITY CHARGES FOR 1986-87

	Average household bill £	Percentage increase over 1985-86
Anglian	116.7	9.2
Northumbrian	84.4	4.9
North West	85.2	9.4
Severn Trent	83.6	9.8
Southern	99.6	8.6
South West	110.9	5.7
Thames	83.1	3.9
Welsh	114.0	8.9
Wessex	107.1	9.8
Yorkshire	91.0	8.9

Most consumers, it concluded, were likely neither to benefit nor to lose by the installation of meters. The extra cost of installing existing meters and billing on a meter basis would be £4.75 per household, while the economic benefits to users would vary between £2.50 and £6.25 a year.

But the industry is opposed to the mass introduction of traditional meters.

"It would be a nonsense to put in 19th-century technology when the black box is just around the corner," says Mr Trevor Newton, finance director of Yorkshire Water.

"It would feel wrong to take on an army of meter readers when the industry is trying to cut back on manpower," says Mr Roger White, technical director of the Water Authorities Association (WAA).

Trials on all types of metering, arising from the Watts Report, are expected to begin later this year, but it is likely to be several years before an industry decision is taken. In the meantime, the cost of the trials is proving politically sensitive.

The WAA believes that the Government should give substantial financial support to the trials; the Government, however, is far from convinced. "The whole momentum towards privatisation will be lost unless we deal with this point," one senior WAA official believes.

Government involvement elsewhere on the charges front is blatant. In 1985, when most authorities wanted to hold down increases to the prevailing rate of inflation, the Government insisted on an average rise of 10 per cent.

This year and next it is the same story: ministers want authority incomes boosted so that debts outstanding to the Treasury can be paid off faster—thus boosting state revenues—while the authorities themselves become, accordingly, more attractive to investors.

Charges are now based on four criteria:

- Inflation
- Government performance aims (whereby authorities reduce operating costs to a fixed target over a cycle of three years)
- External Finance Limited (the amount authorities can borrow from external sources)
- Minimum rate of return on assets (set this year at 1.60 per cent)

Last year, the industry was furious about the imposed higher charges.

At Yorkshire, Mr Newton says that his board's firm policy is that charges should not exceed increases in the retail price index (RPI). "But since the Government fixes our charges by setting financial targets, the board's intention is frequently frustrated."

Over the last two years, Yorkshire's charges have increased at twice the rate of inflation. The authority has tried to hold down the rises by increasing efficiency wherever possible. Yet the fact remains that while efficiency has gone up by an average of 3 per cent a year, charges have been rising by closer to 10 per cent.

"It's difficult to motivate management and workers when they are under pressure to increase efficiency and then do not see the improvements made reflected in charges. It is a very demotivating regime."

Yet, at Yorkshire at least, they are not completely downhearted. "Our aim is to defeat the Government's performance targets. We beat them last year and we'll beat them this year."

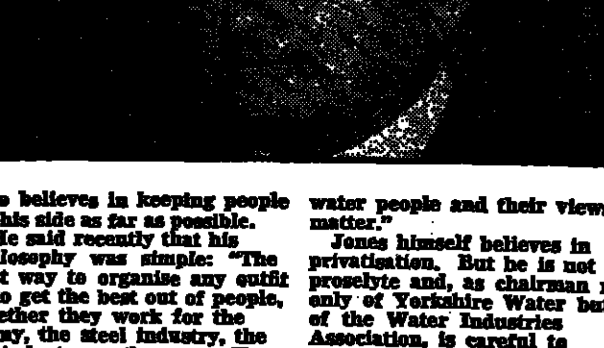
The water industry wants metering and it wants to continue borrowing money to fund investment. It is unhappy that its charges policy has been undermined by the Government's revenue requirements and—with the notable exception of Thames—will probably not be too unhappy that the drive towards privatisation has been at least temporarily halted.

Walter Ellis

PROFILE: Gordon Jones

ACCORDING TO his staff, Gordon Jones, chairman of Yorkshire Water, is first and foremost a manager.

"He is not some rabid privatiser," one senior aide said of him recently. "He is customer-oriented, with a marketing background. He brought perceptions of customer needs that simply weren't there before. And he has really beefed up our efficiency a hell of a lot."



Since taking over at Yorkshire in 1982, Jones, a Welshman, has presided over a fairly rapid slim-down of the authority's workforce, from 6,200 to 5,400, and a further 400 redundancies have still to be found.

Yet there has been little outcry from the unions. Everything has been done after consultation and negotiation, and there is a feeling among the workforce that they are not being asked to accept any change that is not unreasonable.

That is a tribute to Jones, who believes in keeping people on his side as far as possible.

He said recently that his philosophy was simple: "The best way to organise any outfit is to get the best out of people, whether they work for the Army, the steel industry, the oil industry or the navy. You have to get them working convergently and to feel genuinely that, in the case of Yorkshire Water, they are water people and their views matter."

Jones himself believes in privatisation. But he is not a proselyte and, as chairman not only of Yorkshire Water but of the Water Industries Association, is careful to maintain a publicly-neutral stance on the subject.

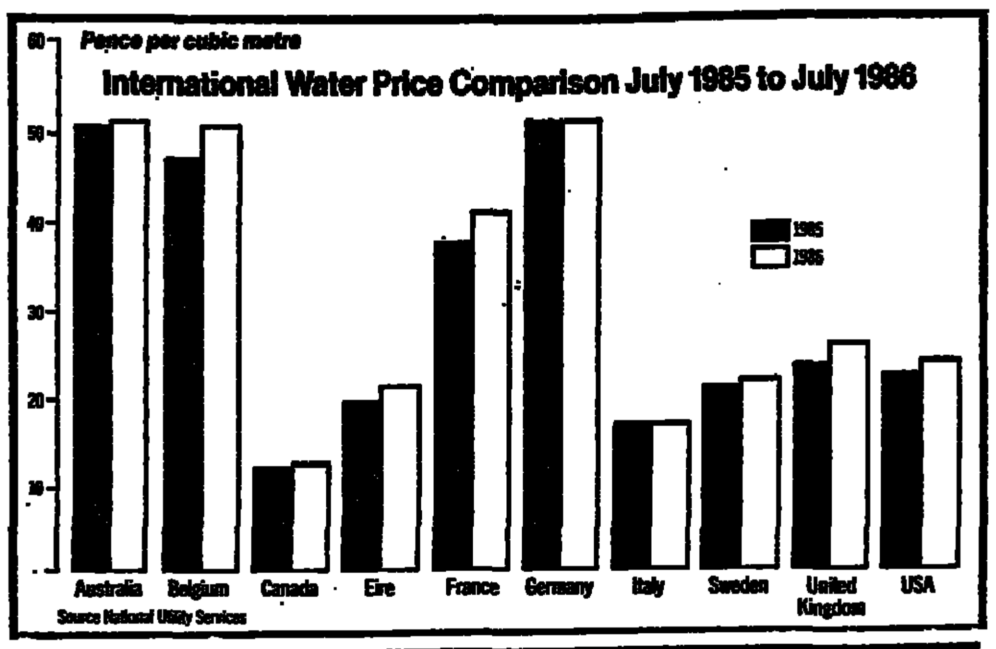
He is waiting for the right convergence of thinking to emerge between the Government and the authorities and in the meantime is happy to get on with running Yorkshire Water as a business.

He was born in Swansea in 1927 and spent four years in the Royal Navy after graduating in chemistry from his local university. Years with the British Iron and Steel Research Association and Esso followed, and then a stint at English Steels, then still in private sector hands.

Most recently, he was a director of Thomas Ward Raw Materials, leaving shortly after it was taken over by Rio Tinto Zinc in 1982.

In Leeds, he is concerned very much with the organisation of the company and does not involve himself day to day with the operational side. He is hoping to move the authority's corporate headquarters to a new building housing just 30 people, separated both from the financial directorate in Bradford and the various operational divisions.

Walter Ellis



International comparisons

Charges raised for improvements

THE UNEXCITING nature of public utilities, water especially, is reflected in the fact that UK investors appeared surprised that the Government should have thought of privatising the water authorities in the first place.

Yet in some countries, water supply and sewerage has been in private hands for years.

In France, 30m consumers — 60 per cent of the total—receive their supplies from private companies. Paris went private only in 1985 and is now in the joint hands of the Compagnie Generale des Eaux, which supplies the Left Bank and the Société Lyonnaise de Eaux, which takes charge of the Right Bank.

Significantly, perhaps, the two companies have only taken control of water *supply*. Sewerage and purification — the dirty end of the business — remain the responsibility of the Hotel de Ville.

More significant still for the citizens of Paris, water charges since privatisation have risen by 16 per cent for most consumers—the exception being those fortunate inhabitants of the old city, where the water supply network remains publicly-owned and where water is sold at nearly half the cost of that piped to its neighbours.

The two main suppliers say they have no alternative but to increase prices. New investment is required, they say, and it is up to those who use the water to pay for the improvements required.

Elsewhere in France, the trend is increasingly towards privatisation, with the major cities in particular moving rapidly towards contracting out. The difference with the UK is that, with a few obvious exceptions, most of the previous suppliers were small, local authority concerns. The French love for centralism had not affected water.

Overall during the 12 months to the end of June, water charges rose by 9 per cent, mainly as the result of a 32 per cent increase in water taxation. This is the highest percentage increase recorded by National Utility Services, the world's largest tariff analysis company, with offices in most advanced countries.

This situation is made worse for many French people by the fact that privately-owned companies tend to charge a premium of as much as a third over their local authority counterparts.

French sewerage and pollution charges over the same period went up by nearly 15 per cent. The country's inflation rate over the 12 months to June was just 2.6 per cent.

Towards the bottom of the prices scale, NUS again found that Italy continued to give outstanding value for money. Only Canada charged less.

More than half of Italy's water supplies are provided by privately-owned consortia, and customers are metered so that they know exactly how much water they are using and can gauge when it might be prudent to turn off the tap.

The system of charges is complicated, with private and municipal suppliers each regulated by provincial price committees made up of local and central government representatives.

However, while charges in Italy were virtually at a standstill in the year surveyed by NUS, the country is now embarking on a long-term improvements programme that could result in significant increases in the future.

One complication is the existence in some regions of rival networks, which may boost the theory of competition but involve much unnecessary duplication of effort. Ways of sorting out this economic dilemma are now being sought.

The US experience is typical of that country. There are at present more than 22,000 water utilities in local authority hands and a further 38,000 private companies. The maze of connections is bewildering, resulting in an undoubted loss of efficiency that is held at bay only by American energy and enthusiasm for the job.

The biggest private company is American Waterworks, which operates 100 networks in 20 states. AWW has annual revenue of about $450m and charges its customers an average $260 a year for supplies.

Charges have to be approved by state utility commissions, and methods of payment vary—with most local authorities seeking only to cover their costs. Metering in large towns and cities is common.

For the 12 months to June, NUS found little change in American charges over the previous year. Substantial increases in the urban giants of New Jersey and Los Angeles did, however, force the national average up 8 per cent.

In Los Angeles, the price rise was due to a change in the tariff structure, which compelled major seasonal consumers—for example the many owners of swimming pools—to pay for planned infrastructural investment.

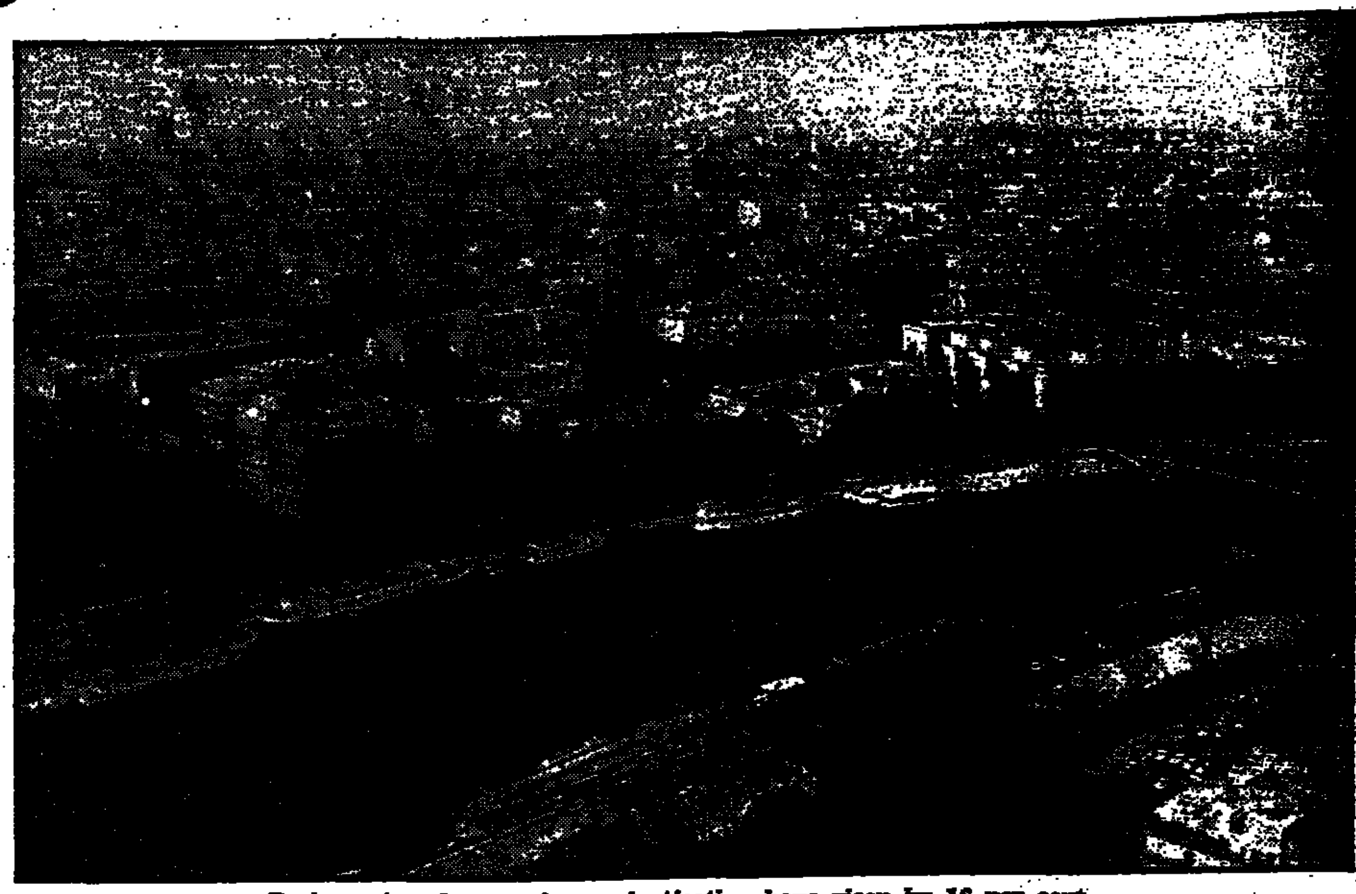
The example of Japan is very different. There, water is not regarded by anyone as a marketable commodity, and privatisation has not advanced very far up the political agenda.

Nearly all of Japan's water, which comes mostly from the mountainous interior and has to be piped to the thickly-populated coastal fringe, is supplied by local authorities. Tokyo's interests are represented by the capital's prefectural government.

Hardly any private suppliers exist in Japan, and those that do are mostly in remote districts, where they operate under government licence. Metering is normal, and costs scarcely vary.

Probably the factor that links water network operations most is the universal acceptance by both customers and suppliers of the importance of the job and the relative cheapness of supplies seen against other utilities. Increases in costs may have raised eyebrows in the past; only now are they becoming an issue in politics.

Walter Ellis



Paris: water charges since privatisation have risen by 16 per cent

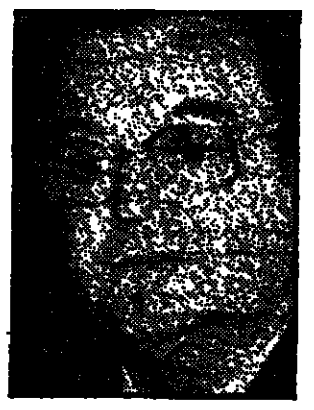
PROFILE: Len Hill

Los Angeles: tariff change has hit seasonal consumers

MR LEN HILL is the only chairman to be appointed by government to serve three terms of office—his third term as chairman of South West Water was announced in January.

He is unusual in other respects, too. He is certainly the only train driver among the water authority chairmen, and is almost certainly the only committed Labour Party supporter because the chairmen are chosen by the government of the day.

Mr Hill, a cheerful 62-year-old, has also been chairman of the Water Authorities' Association, the industry's trade body, since it was created in 1983 on the abolition of the National Water Council. He is expected to step down this autumn in favour of Mr John Bellak, chairman of Severn Trent.



Mr Hill joined the railway industry as a 16-year-old before it was nationalised and became a train driver 15 years later. During his initial years as chairman of South West Water he continued to drive trains and was an official of the railway union Aslef for 25 years.

He was leader of the Labour group on Devon County Council when Mr Denis Howell, then Minister in charge of the water industry, offered him the SWW chairmanship.

Most of his time is spent on water industry business but there have long been other activities and interests. Mr Hill was deputy Lord Mayor of Plymouth from 1966-67, vice chairman of Plymouth City Council's education committee from 1963-66 and nominated party spokesman on education.

He is a magistrate in Plymouth and a member of the board of visitors of Dartmoor Prison.

Mr Hill became chairman of West of England Newspapers in February this year and is also chairman of Plymouth Sound commercial radio station.

Richard Evans

Equipment

Momentum for greater efficiency

WHETHER OR not the water industry ever privatises, the momentum for greater efficiency which has built up within it over the last few years is still gathering pace.

The *industry's management* is now expected to manage its assets, not just to account for them. These assets are currently valued at about £26bn, two-thirds of which are underground.

According to the National Economic Development Office (Nedo), many of these assets are old and in need of repair.

"A substantial amount of expenditure is required for preservation or renewal," it says in a 55-page report called The Nation's Infrastructure—Water, published in March by Nedo's Civil Engineering Economic Development Committee.

"Capital investment by the water industry halved between 1974 and 1980, reflecting slower growth in demand, improved appraisal techniques and constraints on external finance. There has been a modest increase in volume terms, of 30 per cent on the 1980 level.

"Deficiencies in levels of services are related to the conditions of assets, both below and above ground, and remedying them will require continued capital investment.

"Authorities have confirmed that knowledge is incomplete, in particular on the location and condition of many of their underground assets."

Recommendations were made by Nedo which included improvements in knowledge of the location and state of underground assets, and the provision of better information on the relationship between capital investment, the condition of assets, and levels of service.

The Water Research Centre (WRc) is currently developing a computer system to superimpose strategic information on top of conventional accounting reports, creating models of the relationships between assets and between their component items by the use of relational database techniques.

The WRc, an international leader in its field, is an independent company employing about 600 people. Funded primarily by the water industry, it offers research and consultancy services worldwide in all aspects of water supply and treatment.

The WRc's ambitious Strategic Informations System Planning (Sisp) project will look at the data necessary to provide the essential information needed by the industry to run its business. Following a detailed evaluation, the WRc has decided to standardise on Relational Technology's Ingres relational database management system.

Evaluating the performance of a water meter at the Water Research Centre

It also plans to combine digital mapping with relational database techniques. This will help it to model the physical location of assets as well as their logical interrelationships.

A project group of water authority chief executives has been established to work with the DCE Information Management Consultancy, contracted by the WRc to undertake the SISP project, in order to determine information systems requirements in the asset management areas.

The DCE Information Management Consultancy is a leading advocate of the use of information as a strategic tool and competitive weapon.

Capital expenditure by water authorities amounted to £798m in 1984-85 according to Nedo. A government White Paper on public expenditure indicates that this is planned to increase to £867m in 1985-86, rising to £1,024m by 1988-89.

Apart from piping and the basic construction materials, an important proportion of this expenditure goes to suppliers of equipment, plant and instrumentation.

The British Effluent and Water Association (BEWA) says its members took orders worth £150m in 1985, over 60 per cent of which went to municipal water and effluent markets in the UK and abroad —£95m of total orders went to export markets.

BEWA is the representative trade association of the treatment plant industry whose 50-plus strong membership, it claims, includes the majority of the leading companies in this sector.

The association collects sales statistics from its members annually, and returns of orders booked are collected at six-monthly intervals as they provide an indication of market trends.

Both within and outside the association, total figures are strongly influenced by the few projects of exceptional size. John Hills, BEWA's director and secretary, estimates that the 10 largest process contractors accounted for about £115m, but declines to identify them for fear of breaking confidentiality.

This information would be difficult to construct from alternative sources because some members are subsidiaries or divisions within larger companies, and do not need to file separate accounts for their water industry operations to Companies House.

In the association's annual report to March 1986, Mr Chris Shirley, chairman of the Dewplan Group and of BEWA, says suppliers have to seek more opportunities in overseas markets.

In 10 years, export orders have moved up from 29 per cent to 57 per cent of the total orders booked. The British Water Industries Group (BWIG), to which 29 BEWA members subscribe, has working groups on Overseas Business and on Specifications for Overseas Projects.

"It has been a long and hard recession which for our members is not yet over. It would be pleasing to report that we could *now profit* from a strong home market but this is not to be and many of our member companies have to seize their opportunities from overseas.

Nevertheless, the home market still represents a substantial revenue potential for plant and equipment suppliers if the Nedo report is anything to go by.

In response to a request from the Department of the Environment in November 1983, water authorities submitted estimates of longer-term investment needs to remedy defects and improve standards of service by the turn of the century.

An overall estimate of £16bn was made, at 1983-84 prices, or £1bn a year.

The first priority was to maintain standards, meet the demands of new housing and industrial development, overcome the worst instances of unsatisfactory water supply and foul flooding of dwellings, and maintain existing infrastructure so that the current backlog of underground dereliction does not increase.

The annual investment need for this alone would come to between £675m and £725m. "Longer-term investment strategies are becoming increasingly essential," the report adds.

"Until comparatively recently, the emphasis of capital expenditure has necessarily been on dealing with the worst and most obvious problems.

"The balance is changing as the worst deficiencies are overcome, and the need is increasing for more comprehensive appraisal systems as an integral part of an overall strategy.

"There needs to be a closer connection than is apparent at present between capital work programmes, asset condition, and levels of service so that the impact of investment on assets and levels of service can be seen," the report says.

Boris Sedacca

£m.	Anglian 1984-85	Anglian 1985-86	Northumbrian 1984-85	Northumbrian 1985-86	North West 1984-85	North West 1985-86	Severn Trent 1984-85	Severn Trent 1985-86	Southern 1984-85	Southern 1985-86
Turnover	268.0	297.0	107.0	111.0	319.0	362.0	352.0	391.0	156.0	177.0
Operating Profits	120.8	138.7	50.4	58.1	112.2	146.7	124.0	149.0	62.9	77.7
Net Profits	23.3	39.4	1.1	7.7	13.3	36.5	−11.1	51.7	25.6	38.5
Capital Investment	108.0	122.0	27.0	39.0	151.0	167.0	113.0	125.0	65.0	70.0
Loans Outstanding	804.0	838.0	401.0	421.0	835.0	905.0	768.0	805.0	296.0	286.0

£m.	South West 1984-85	South West 1985-86	Thames 1984-85	Thames 1985-86	Welsh 1984-85	Welsh 1985-86	Wessex 1984-85	Wessex 1985-86	Yorkshire 1984-85	Yorkshire 1985-86
Turnover	81.0	88.0	455.0	501.0	177.0	187.0	94.0	106.0	225.0	248.0
Operating Profits	35.2	39.4	144.7	184.3	37.5	46.0	57.8	64.1	84.8	99.3
Net Profits	18.7	23.2	104.8	149.9	−2.9	12.2	11.8	18.8	28.8	35.6
Capital Investment	42.0	41.0	138.0	194.0	41.0	55.0	41.0	54.0	99.0	100.0
Loans Outstanding	136.0	136.0	308.0	269.0	410.0	432.0	212.0	232.0	480.0	509.0

The Thames Barrier: prestige project which protects London from flooding in the event of very high tides. It is highly visible evidence of the many areas of water management in which the water authorities are involved

The water authorities

Differing problems and commitments

THE INDUSTRY was gearing itself up fast for privatisation, and competing brokers' league tables on the performance of the water authorities were already beginning to appear even though the basic ground rules for flotation had not been finalised.

The consensus was that Thames, Southern, Anglian and possibly Northumbrian without its debt burden were among the more desirable buys; Severn Trent, Wessex and South West were somewhere in the middle; and Yorkshire, Welsh Water and North West were friendless.

With privatisation shelved, at least until after the next election, the authorities have more time to improve their performance and work on their problems. Here is a brief assessment of them:

ANGLIAN: Geographically largest of the 10 authorities and one of the most efficient. Profits rose from £23m to £39m last year but it has some difficult problems.

Some mains are in poor condition and some water is tainted because of agricultural chemicals. Has an extensive coastline, including many bathing beaches, and the added complication of the Fens and the Broads.

The authority has a high capital expenditure programme and the third-highest debt burden of the 10 authorities. The key question for Anglian is land drainage: it has far more responsibilities than any other authority. Chairman: Bernard Henderson.

NORTHUMBRIAN: Smallest area but one of the most efficient authorities, ranking top in population served per employee and turnover per employee, but it serves an area of low population and industrial decline.

Most notable item in its financial position is a high debt burden, created largely by construction of the Kielder dam and reservoir in 1982. An anticipated increase in water demand from industry in the north east never materialised and Kielder, although a great environmental and recreation attraction, is a financial millstone.

Operating profit of £58m reduced to net profit of £7m. Chairman: Sir Michael Straker.

NORTH WEST: Fourth-largest in area and second in population density, North West probably has the biggest problems. Its Victorian infrastructure is crumbling and the region is in industrial decline. River quality, particularly in the Mersey, is dreadful.

The authority estimates the clean-up will take at least 25 years; a £170m improvement package for the Mersey has been launched. Beach quality also a problem. Debts total more than £900m and Dennis Grove, the new chairman, is trying to improve the authority's image.

SEVERN TRENT: Serves England's industrial heartland, including Birmingham conurbation and the Black Country, plus some upland areas of Wales.

There has been a decline in industrial meter usage with the recession among traditional industries. Current charges are low.

A highish debt burden of over £800m follows heavy capital expenditure programme over the past five years. Advanced techniques in use for sewage disposal, including incineration. First authority to employ an environmental architect. Trying to develop overseas consultancy work. Chairman: John Bellak.

SOUTHERN: One of the smaller regions by area, and 45 per cent of the water supplied is through six statutory water companies.

Operating and management costs well maintained over the last five years and held consistently below the industry average. Manpower reductions of 16 per cent have also bettered the average.

A prosperous population, high charges and profitable. Net profit last year was £38m. River quality generally good, *and inherited problems of sea* outfalls are being dealt with. Some problems from water discoloration. Chairman: William Courtney.

SOUTH WEST: Serves relatively small region in predominantly rural, sparsely-populated area, but numbers treble in tourist season—one reason why water charges are among the highest.

Operating costs per head of population have been contained, however, and are the third lowest in the industry. Debt burden low at £136m.

Potential for recreational income is high. Points of concern include low rainfall and adequacy of the water supply, and cost of cleaning up beaches. Manpower reductions over past five years have not kept pace with the industry average. Chairman: Len Hill.

THAMES: Sixth-largest area but with by far the largest population, Thames has led the campaign for privatisation and regards itself as the most ready. Strong balance sheet with low gearing; only authority to have reserves greater than net debt. Loans of £76m repaid last year and net profits were £150m on turnover of £500m.

Major productivity gains in last five years with manpower cut by 23 per cent. The region ranks second in both population served per employee and turnover per employee.

High profile chairman, Roy Watts, and effective public relations machine that can irritate rest of the industry.

WELSH: Another authority with a large proportion of industrial consumers. Manages to retain its profitability by keeping domestic charges high.

With the population concentrated in the industrial south and along the north coast, operating costs are significantly ahead of the average. Population served per *employee is* lowest of all 10 authorities.

Profits were £12m on turnover of £187m.

Welsh also ranks 10th in terms of net debt as a multiple of reserves and profits. Chairman: John Elfed Jones.

WESSEX: One of the smallest authorities with little industry. Three large water companies, Bristol, Bournemouth and West Hampshire, account for 55 per cent of water supply.

Charges to consumers high and unit costs have shown a downward trend.

Wessex has been a lead authority in the development of information technology for the management of water and sewerage services, allowing costs to be controlled.

Agricultural and chemical run-off a major pollution problem. Chairman: Malcolm Anson.

YORKSHIRE: Predominantly industrial area with big infrastructure problems: high incidence of sewer collapses, polluted rivers, discoloured water and a decline in heavy water-using industries.

Eighth in terms of population served per employee and ninth in turnover per employee. Operating costs have crept up to 10 per cent over the industry average. High capital expenditure *has led to a steadily increasing* interest charge.

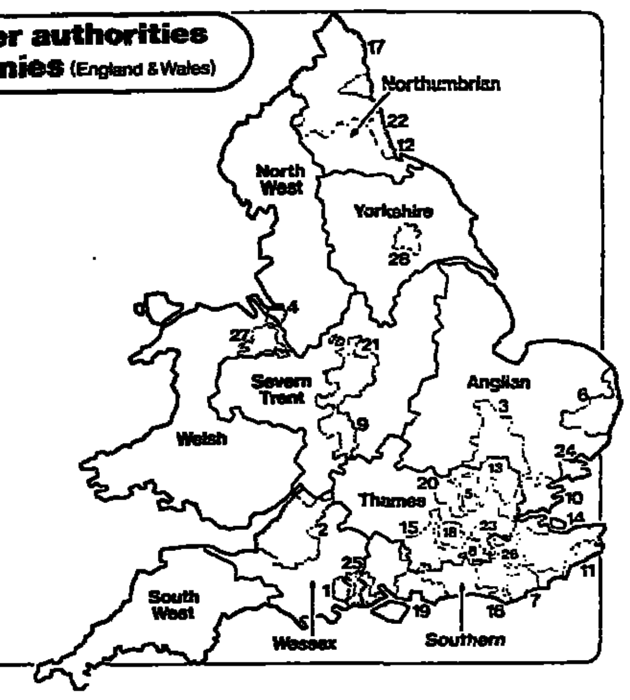
Domestic water tariffs are low. Chairman: Gordon Jones.

Richard Evans

The regional water authorities and water companies (England & Wales)

Water companies
1 BOURNEMOUTH
2 BRISTOL
3 CAMBRIDGE
4 CHESTER
5 COLNE VALLEY
6 EAST ANGLIAN
7 EASTBOURNE
8 EAST SURREY
9 EAST WORCESTERSHIRE
10 ESSEX
11 FOLKESTONE
12 HARTLEPOOL
13 LEE VALLEY
14 MID-KENT
15 MID SOUTHERN
16 MID SUSSEX
17 NEWCASTLE and GATESHEAD
18 NORTH SURREY
19 PORTSMOUTH
20 RICKMANSWORTH
21 SOUTH STAFFS
22 SUNDERLAND
23 SUTTON DISTRICT
24 TENDRING HUNDRED
25 WEST HAMPSHIRE
26 WEST KENT
27 WREXHAM
28 YORK

— Water authority boundary



Mineral waters

UK market still expanding

THE BRITISH market for bottled mineral waters is still growing after 10 years of steady expansion in sales.

The taste has been firmly established, in a country which until fairly recently regarded water in bottles with suspicion. It was funny, foreign and usually both—and proof that other nations and their taps should be approached with caution.

Now the UK market for bottled waters is worth £48m, with sales of 80m litres last year.

While that represents only 2 per cent of the total UK market for soft drinks, it amounts to a remarkable commercial and cultural change, with a massive increase in demand for a product which used to be absent from people's shopping lists.

Yet the volume consumed per head of the population—an average of a litre or so in 1984, is still small and places the UK far below its European neighbours in the league table of bottled water drinkers.

According to the National Association of Soft Drinks manufacturers and trade estimates, the French drank 72 litres per head of bottled water in 1984, followed by the Belgians (56 litres); the West Germans (54); the Italians (51); the Spanish (27) and the Dutch (9).

At Perrier, the French bottled water and market leader in Britain—whose distinctive Indian club-shaped bottles can be found in pubs, restaurants and supermarkets throughout the country—there is confidence that this average figure will steadily rise.

Mrs Wenche Marshall Foster, chief executive of Perrier's UK operation, estimates that the average Briton will be drinking ten litres of bottled water a year within two decades.

There is also an interesting divergence between the UK and France over the type of bottled water preferred. In the UK 65 to 70 per cent of total mineral water sales are of sparkling water, which includes Perrier; in France, still (non-carbonated) water dominates the market, and sparkling water represents only about 20 per cent of sales.

The still water market share in the UK is increasing. From 25 per cent of total mineral water sales in the UK in 1982, *it accounted for 30 to 35 per* cent last year.

According to a survey of 1,000 adults conducted earlier this year by Mintel, the market research specialist, more than a third of those polled drink bottled water—just over double the 1983 figures—with young professional people, predictably, leading the way.

Twenty-five to 44-year-olds are more likely to drink mineral water than those in the 15-25 age bracket and the over-45s. Although those in the ABC1 category consume more than the CDEs, there are indications that its appeal is spreading more widely—possibly due to habits developed on overseas trips, and growing concern about healthy eating and drinking in general.

The spread is also geographical, with the North of England coming to adopt some of the already comparatively well-developed enthusiasm for the stuff in the South.

The growth of the bottled water business took off in the 1970s, heralded by the formation in 1972 of Aqualac, a company created by Perrier to exploit potential UK markets.

There is a variety of plausible reasons for the steady rise in sales. Besides marketing there has been an increased awareness of the fact that tap drinking water has been subjected to multiple recycling; concern about chemical additives such as fluoride; worries about the effects of industrial and farming pollution, especially nitrates; and changes in drinking habits with younger people looking for an alternative to spirits.

MINERAL WATER BRAND
(Percentage shares by volume 1985)

	Sparkling	Still	Total
Perrier (Aqualac)	55	—	35
Highland Spring (Stirling)	10	25	15
Malvern (Schweppes)	5	10	7
Ashbourne (Nestle)	5	3	4
Evian	—	15	5
Own label	20	40	28
All others	5	7	6
	100	100	100

Source: Mintel.

The most rapid growth in demand occurred in the late 1970s, and again in 1983. In 1977 the British drank 6m litres at a market value of £3.5m. Consumption soared by 92 per cent the following year to 11.5m litres (£5m).

By 1983 bottled mineral water sales had risen to 55m litres (£35m) before leaping by more than a quarter.

In 1983 there were between 80 and 100 brands on sale, a proliferation which could not be sustained as competition for shelf space grew. According to Mintel, there are now 37 mineral water brands on the market.

Perrier's early advertising campaign—including the winning Franglais slogans "H2Eau" and "N'eau calories"—helped to make its name virtually the generic term for bottled mineral waters.

Perrier sells only sparkling water and has a 55 per cent share of that market, which *gives it 35 per cent of the* total market for mineral water.

Its water is drawn from a spring at Vergeze, near Nimes in southern France, known since ancient times but not exploited commercially until 1903—and then by an Englishman. St John Harmsworth, the handicapped brother of the newspaper magnate Lord Northcliffe, took the water himself, believing in its properties, and decided to buy the source, to bottle and sell it under the name of the doctor who had advertised its use—Dr Perrier.

Harmsworth modelled the familiar shape of the Perrier bottles on the Indian clubs with which he exercised. His family, who were bequeathed the spring, sold it, believing it would never amount to much as a business proposition.

UK brand leadership in the still water category is hotly disputed. Evian, a French supplier from the Alps, claims it still holds the lead but Mintel reports that Highland Spring, produced by the Stirling Mineral Water Company set up in 1979, has overtaken it.

Supermarket chains have become a critically important outlet for bottled water, and account for half the total volume sold last year.

The rationalisation of the business over the past few years results largely from the successful introduction of retailers' own brand labels, which in 1985 claimed 28 per cent of all sales.

J. Sainsbury decided early on that bottled mineral water complemented its customer profile and established its own brand. It now owns a bore hole to the Highland Springs' source in the Ochil Hills in Perthshire, and markets two own labels Scottish Spring (from that source) and Sainsbury's Cwm Dale Spring, as well as being the key outlet for branded waters.

The EEC has introduced regulations in compelling each supplier to identify their source, which enables consumers to recognise identical water sold under different labels at varying prices.

A further effect of the new legislation is that British bottlers have to declare the fact that most of the native sparkling waters are artificially carbonated, unlike imported brands which often contain naturally-occurring carbon dioxide.

Growth of the market has prompted some local enterprise, *too.* Northumbrian Mineral Water, produced by the only water authority in the country to sell its own spring water for bottling, is available in pubs, off licences and shops, and is regularly exported, especially to the Gulf states.

Fiona Thompson

Some of the dozens of brands of bottled water—now a familiar sight in supermarkets

Water companies

Pioneers hold their political support

IN 1698 William Yarnold, a leading engineer of his day, obtained an Act of Parliament "for better supplying the Town of Newcastle upon Tyne with fresh water." So was formed the first of the water companies, and despite all the vicissitudes and re-organisation of the succeeding 300 years they survive—and flourish—today.

The water companies record, by common consent, has been good. In 1849, for example, when there were more than 70,000 deaths in England from cholera epidemics, it was noted that "Newcastle and Gateshead were plentifully supplied with water unpolluted with sewage . . . and these towns escaped with a very slight visitation of cholera."

More recently, while privatisation was an active issue, attention inevitably and rightly concentrated on the 10 regional water authorities the Government intended to float. But the exercise once again underlined the remarkable resilience of the statutory water companies. Against all the odds, they were set to retain their independence.

Historically, water companies were the pioneers of the water supply industry in England and Wales, in response to the growing industrialisation and urbanisation of the 18th century.

The current framework of the water industry was created by the 1973 Water Act, which rationalised the numerous bodies concerned with water and set up the 10 regional water authorities based on integrated river basins.

The statutory water companies escaped the 1970s re-organisation largely because of their powerful political support. They have traditionally had peers and senior MPs as political allies and in positions of influence—Sir John Page, Conservative MP for Harrow West, has just taken over as president of the Water Companies' Association from Lord Elliott of Morpeth.

It was simply too difficult a hurdle for Mr Edward Heath's Tory Government to surmount. Far easier to leave them be.

There are now 28 water companies, ranging from Newcastle and Sunderland in the north to Bournemouth and Folkestone in the south. The compaies obtain, purify and deliver water to 12m consumers, providing a quarter of the water needs in England and Wales. Customers include industrial, commercial and agricultural consumers as well as domestic users.

They vary in size from Essex, South Staffordshire and Bristol, each serving populations of more than 1m, to Hartlepools covering 90 square kilometres and supplying a population of 92,000. Essex, the biggest, has an annual turnover of over £30m.

They are also spread unevenly across the country, with 45 per cent of water in the Southern area supplied by companies, but none in the North West. Thames has seven water companies wholly or partly within its region.

Under the 1973 Act, the regional water authorities were obliged to discharge their water supply duties through companies in areas where the companies operated. But the companies are not involved with such functions as sewerage and land drainage, which remain the responsibility of the relevant authority.

They are unregistered companies, incorporated by individual Acts of Parliament, and with shares quoted on the Stock Exchange and held mainly by institutional investors. They operate under statute to provide an adequate supply of wholesome water to the public for a strictly-controlled financial return.

Strict financial controls ensure that money is raised in the markets at lowest cost and that surpluses in any year are set against future charges to the direct benefit of consumers.

These controls include:

- Amounts of share and loan capital that can be raised.
- Issue of share capital by auction or tender.
- Rates of dividend on share capital.
- Rates of interest on loan capital.
- Amounts that may be put to reserve and contingency funds.
- Amounts of accumulated surpluses that may be carried on from year to year.

The amount of a company's capital is specified in its Act and in Parliamentary Orders. At present, to increase its capital a company has to make an application to the Department of the Environment and and project its programme of works for a few years ahead.

The department has the opportunity, therefore, to review the affairs of the company and to lay an Order for the amount requested or for a modified amount.

Under the arrangements made between the companies and the water authorities, companies have to submit an annual programme showing any *proposed improvements to source* and treatment works and trunk mains.

This arrangement also ensures that authorities keep companies informed of the principles and criteria by which they intend to fix the water charges.

The statutory companies in their long history have proved remarkably resilient. They have retained their independence untouched by the recent privatisation proposals.

The perception, erroneous though it may be, that the companies are more efficient than the authorities has arisen largely because over the last few years the companies have raised charges roughly in line with inflation, whereas the authorities have increased charges repeatedly in excess of inflation. But in many cases this was forced on the authorities by the financial pressures exerted by the Government.

What is certainly true is that many of the companies have been in the forefront of higher efficiency by cutting their workforce and by the introduction of new technology.

Newcastle and Gateshead, and South Staffordshire, two of the biggest, have both gained a reputation for innovation and technical achievement, for example.

South Staffordshire Water Company, based at Walsall, is also one of the few to be involved in substantial overseas contracts. It is currently undertaking work in Malawi and Nigeria.

Lee Valley Water Company, based at Hatfield, Herts, is investing more than £4m in new technology to spearhead an efficiency drive. Top priority is for an offensive on leakage reduction, the introduction of computerised digital mapping and the automation of all its source works.

The 28 companies are represented by the Water Companies Association, with offices at Westminster. Its chairman is Mr Maurice Lowther, managing director of the Newcastle and Gateshead Water Company, and director and secretary is Mr Michael Swallow.

The Government's White Paper on privatisation, published in January, rather skirted the issue of the water companies, adding a further complication to the privatisation process.

The essential message was that they should stay as they were but should have the opportunity of converting to full public limited companies (plcs) if they so wished. There would also, of course, be the prospect of a takeover by a privatised authority.

The companies were relieved that there were no plans for radical change in their status, but they were worried by a number of aspects of the White Paper.

First, there was the issue of abstraction charges. At present the companies pay the authorities for the water they take. But it was feared that once the authorities were privatised their monopoly position could place the companies at a substantial disadvantage.

Second, there were worries over the period for which the plcs were likely to be granted licences (25 years). Capital expenditure programmes are so long in the industry there was a fear that plans could be shelved in the last few years of a licence as it approached renewal.

Third, the companies believed, like the authorities, that to impose the same price formula for the whole industry would be wrong. They favoured a flexible approach that would take into account regional and local factors.

At present, average annual bills per household vary greatly between companies. They range from £51 in East Surrey and £55 in Mid-Sussex to £24 in Hampshire and £27 in Portsmouth.

Finally, the companies were deeply hostile to the proposal to remove control over the maximum dividend payable to shareholders. At present the Environment Secretary sets the limit for the maximum dividend the companies can pay, and any surplus must be returned to the consumer through a reduction in charges.

The companies wanted this system to continue so that consumers rather than shareholders stood to gain from increased profitability and efficiency.

There will now be more time for these and other issues to be discussed before privatisation again returns to the political agenda. The intention will again be to retain their treasured independence.

As Sir John Page, speaking in a Commons debate last month pointed out, the companies would perform the same sort of function in a privatised industry as Mercury does for British Telecom. "If the *statutory* companies did not exist, the Minister would have to go to the enormous trouble of creating them," he said.

Richard Evans

Consultants

Far-flung work for UK engineers

A LEAKING dam near the Great Wall of China, a new £320m (US$636m) drainage scheme for the world's largest irrigated area in Sind, Pakistan, and a major sewerage project for Istanbul and the Golden Horn have a common link. They are currently being investigated, designed or supervised by British consulting engineers.

Last year British engineers managed to obtain work with a total capital value of more than £6bn. In nearly all cases, the consultancies were obtained in the face of intense competition from long-stablished firms in Europe, Japan and North America, and from the engineering elite of newly-competing countries such as India, Taiwan, Brazil, the Philippines, Pakistan and Korea.

With work in the petrostates in decline, consultants are trawling the world for new opportunities and finding them mainly in aid-funded projects in developing countries financed by the World Bank, the Asian Development Bank, the Overseas Development Administration and the EEC.

These agencies are concentrating their investment efforts on projects which have low per capita costs, which make the best use of existing resources and can be easily operated and maintained. They are also keen to recruit consultants who are able to help set up efficient local institutions for water supply, sanitation and irrigation.

China holds potential for water sector consultants and the World Bank has already allocated funds to rural water supply, salinity control, drainage, flood protection and sewerage. British participation as yet is rather small but British Water International (BWI) which co-ordinates the water authorities' overseas efforts has a mission to China in October this year.

Among consultancies currently being pioneered in China, ODA is financing investigation by Howard Humphries of Leatherhead into ways of reducing leaks from the Biankeng dam sited north of Beijing. The dam, designed for irrigation, was built close to the Great Wall of China in 1977 but has never stored water because it leaked seriously while the reservoir behind it was filling and the water had to be emptied.

Also in the Beijing area, ODA is funding work by Thames Water, the Water Research Centre and Sir M. MacDonald and Partners on a waste water plant for the district of Gaobeidian.

Binnie and Partners of London, in partnership with Binnie and Partners pty of Australia, funded by Australian assistance, has completed outline design for a major wastewater project for Shanghai which is awaiting World Bank appraisal. The $500m project will provide a sea outfall which is the least-cost solution for Shanghai's sewage disposal problem.

Disposal of wastewater at sea is something of a British speciality. A joint venture between Taylor and Binnie is working with Turkish consulting engineers UBM on a sewerage scheme for Istanbul which involves twin outfalls to carry effluent 1.5 km away from the shore to an area of the Bosphorous where the combined action of sunlight and strong tides will quickly break down the bacteria.

The Taylor Binnie joint venture is also responsible for design of the £2,000m Greater Cairo Wastewater Project which is under construction. An assessment of stage 1 of this project shows that the return ratio of trade to aid within the UK, stands at 5.4 to 1.0. It is being funded partly by the Egyptian Government, partly by soft loans and partly by Export Credits Guarantee Department backed loans.

In Asia, consultancies may be financed by the private sector with some soft loans from government sources. Malaysia, for example, is embarking on a national rural water supply programme for which the Overseas Development Administration is providing up to $80m. The $350m turnkey project, put together by Biwater of Dorking, involves three UK consultants, Binnie & Partners, Watson Hawkesley and Sir M. MacDonald.

Thames Water International, the overseas consultancy arm of the Thames Water Authority, started work in March this year on an ODA-funded £200,000 technical advisory project for the river Ganges in India.

Working with the Central Ganga Authority, a newly-formed coordinating body for the Ganges river basin, the seven-strong Thames team is creating a computer model of the river. The authority has also asked for assistance in selecting suitable sewage treatment plants, and for advice on energy recovery (using methane generated by sewage treatment) and sewerage rehabilitation for the cities and towns along its 2,500km length.

The cities include Cawnpore, Varanasi (which puts 60,000 cubic metres of raw sewage into the river each day) and Calcutta, India's largest city.

The Ganges, which rises in the Himalayas and is fed by melting snow, has exceptional cleaning and regenerative capacity. But rapid expansion of riverside cities (India's population is currently growing by a million people a month), large-scale industrialisation plus the 10,000 partially-cremated bodies and 60,000 animal carcasses which are found in the river each year are creating serious problems.

Thames International engineers say that, despite the difference in scale, experience gained on the Thames is directly relevant to the Ganges.

A team from India's Ministry of the Environment and the Ganga River Authority is due to visit England in September to discuss the interim report and *Thames International hopes to* extend the initial contract.

Several generations of British water engineers have worked in what is now the Sind province of Pakistan, helping to develop irrigation in the flood plain of the Indus river. Engineers have always known that the area, which produces wheat, rice and cotton under irrigation, would eventually need drainage to counteract water-logging and salination of soils, but it has been difficult for the financing agencies to justify the £636m investment needed.

However, a co-financing package has now been put together with the Pakistan government, $150m from the World Bank, $100m from the Asian Development Bank and contributions from other agencies including $40m from ODA. Sir M. MacDonald and Partners of Cambridge, in association with two Pakistan firms, National Engineering Services and Associated Consulting Engineers, has won the consultancy contract.

The drainage scheme, known as the Left Bank Outfall Drain Project, will cover 1.4m acres and will take eight years to complete. A 120-mile long drain will be built to collect salty drainage water which will eventually be released into the Arabian Sea.

The 900 man-months of consultancy work involves an equal three-way split between MacDonalds and the two national firms. This type of shared consultancy, with expatriates advising and assisting the client with highly specialised design, is becoming increasingly common in Asia where there are competent teams of local engineers.

In Indonesia, for example, the ratio of expatriates to Indonesians is likely to be about one to four.

Capital investments on the scale of the Left Bank Outfall Drain are unusual these days and the bulk of water consultancy work is in training, leak control, rehabilitation of existing water supply and sewerage schemes, and operation and maintenance.

In cities throughout the world, consultants have shown that small but intensive investment in leak control detection and control benefit the water supply system within a few months, allowing major capital expenditure to be deferred. John Taylor and Watson Hawkesley, together with a consortium involvement from Thames Water, BWI, Water Research Centre, Palmer Environmental, and the Water Industries Training Association is half-way through an important leak detection and control programme for the Republic of Korea. Financed by the World Bank, the project is planned primarily to transfer technology, to the staff of water bureaux in 12 Korean cities.

Measures to reduce water loss are also being implemented in the Kenyan capital, Nairobi. The Severn Trent Water Authority has been retained to work on management, billing and operations problems.

However, water supply is running short and it is recognised that new sources are needed urgently. Howard Humphries, which has a long association with the Nairobi City Commission, has investigated new options and proposes that a new dam should be built at Thika.

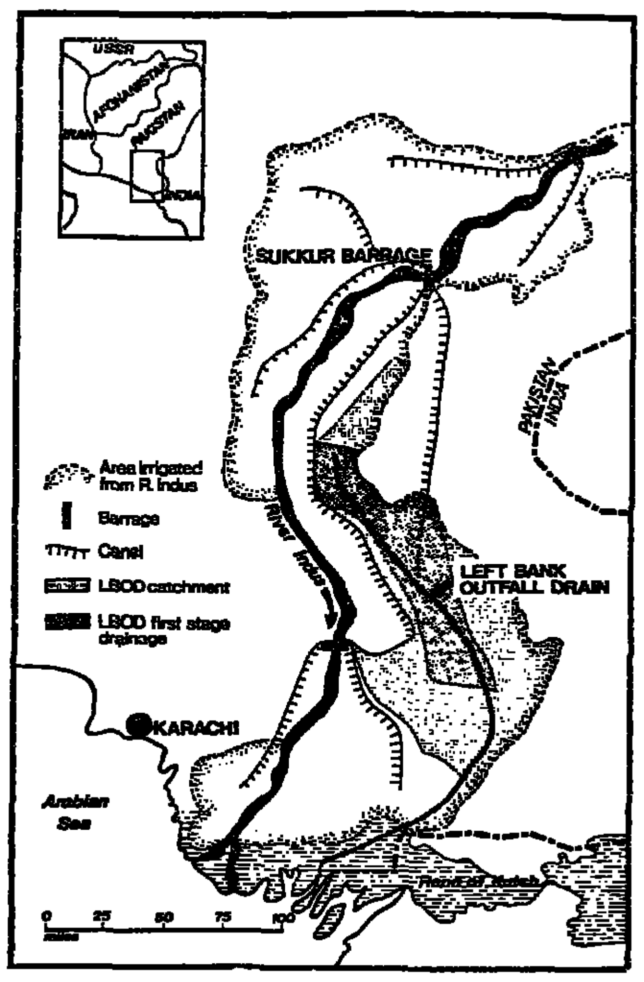
Where groundwater projects are planned, success often depends on the skills of the hydrogeologists who chose sites for the boreholes. Hydrotechnica, a specialist UK consultancy in this field, uses integrated geophysical techniques and is currently locating and developing high yield boreholes in Nigeria.

On a recent drought relief project in Zimbabwe, the firm claimed success rates of 90 per cent for production boreholes which provided 200,000 people with water at a cost of $13 per head.

Low-cost projects which put high technology to good effect may be of great assistance to developing countries which have limited funds and urgent need for water. However, one of the main complaints made against consultants by their clients in developing countries is that they introduce technologies which are inappropriate to the location. Consequently, projects are built and cannot be maintained, or equipment is introduced but cannot be used.

The challenge for consultants in the late 1980s, the second half of the specially-designated International Drinking Water Supply and Sanitation Decade, is to devise affordable and sustainable schemes, to develop their own understanding of the needs of developing countries, and to share their knowledge.

Annette Bingham



Drainage scheme package

The huge drainage scheme to help develop irrigation of the Indus flood plain in Pakistan will cost £636m.

The co-financing package, which involves the Pakistan government, the World Bank, Asian Development Bank and other agencies, will enable work to be carried out to reduce water-logging and help the soil to improve.

The project involves building a 120-mile long drain to collect salty water and carry it to the Arabian Sea.

One of the difficulties when such schemes are projected is their cost in countries where funds may be limited and the simple need for good drinking water a greater priority.

PROFILE: Maurice Lowther

MR MAURICE LOWTHER had no idea his term as chairman of the Water Companies' Association would be so eventful.

He became chairman of the association, which represents the 28 statutory water companies in England and Wales, two years ago when the water industry looked set to continue its quietly effective background work and the companies were little known outside their local areas.

Then came the prospect of *privatisation and Mr Lowther* was thrust into the turmoil of the negotiations. The companies, anachronistic to some, were determined to to maintain their independence, as they had done against the odds when the industry was reorganised in 1973.

Governed by strict statutes laid down by Parliament, the companies supply water through the water authorities in the areas where they operate. But they do not have any sewage functions.

Mr Lowther, managing director of the Newcastle and Gateshead Water Company, one of the largest, and his colleagues looked set to win their battle when privatisation plans were postponed.

Maurice Lowther: thrust into negotiations.

The Government White Paper proposed leaving the companies alone, but gave them the option of becoming public limited companies like the authorities.

It was regarded as a coup for the companies, which have always had strong political support from the Conservative Party.

Mr Lowther, a consulting engineer specialising in pipelines and dams, joined Newcastle and Gateshead in 1958, became deputy chief engineer and then managing director in 1971.

He has been national president of the Institution of Water Engineers and Scientists and is a recipient of the international friendship medal awarded by the US water industry.

His hobbies at his home in Northumberland are bee-keeping and fishing.

President of the Water Companies Association is Sir John Page, Conservative MP for Harrow West, who recently took over from Lord Elliott of Morpeth. Mr Michael Swallow is director and secretary.

Richard Evans

Technology

Differing rates of development

THE APPLICATION of new technology in instrumentation and control has developed at different rates among the various UK water authorities.

Privatisation and the resultant drive for greater efficiency and profitability has led the water industry to scrutinise closely its working methods and to investigate developments in micro-electronics and information technology.

Early in 1979, the Department of Industry commissioned Environmental Resources and Watson Hawksley to examine the potential for the exploitation of Instrumentation, Control and Automation (ICA) techniques in the management of the water industry.

Their findings, published in December 1979, suggested that a market potential of £40-50m could be anticipated by 1984. As it turns out, this was underestimated.

In 1980, the *former National* Water Council created a Water Industry Steering Group on ICA, made up of water authorities and companies, manufacturers, suppliers and consultants.

The group was chaired by Mr Kenneth Roberts, chief executive of the Wessex Water Authority, and strongly supported by the Department of Trade and Industry and the Department of the Environment. "Technology should not be delegated to some middle-tier manager, because otherwise it becomes fragmented," says Mr Roberts. "It is no good specifying bits of hardware and software piecemeal—it has to be a joint partnership with manufacturers."

The Wessex Water Authority is one of the leading *proponents in the application of* new technology and office automation to the water industry. It has one of the most advanced integrated telecommunications network in the industry, tying in telemetry systems with computer data and digital PABXs.

One example of partnership with manufacturers is the Wessex 100 Logger, a highly accurate portable recorder for operational information such as flow and pressure.

It was developed because other commercially available equipment was found to be inaccurate and unsatisfactory. It records variables such as pressures and replays this in graphical form at the authority's local offices.

"As a rule we do not believe in making things ourselves. We got the idea for a prototype, and we partnered with a manufacturer who improved the design. These types of ventures provide opportunities for the manufacturers in export markets," says Kenneth Roberts.

One of the most significant outcomes of the ICA Steering Group was the establishment of four Evaluation and Demonstration Facilities (EDFs), inspired by the realisation that even the most carefully conducted laboratory experiments can never reflect the problems of a live environment and the experience of work undertaken in the field.

Supported by Government grants, they comprise a sewage treatment facility at Thames Water's Witney Works, a water treatment facility at Yorkshire Water's Eccup Works, a supply and distribution facility at the Rickmansworth Water Company, and a river management facility for Wessex Water at Avon and Dorset.

These EDFs are now managed by the Water Research Centre's ICA Steering Group, also chaired by Mr Roberts. "The manufacturers were luke-warm *about EDFs to begin with.* Now there are not enough places for them on the test beds," he claims.

"We have even been approached by some German manufacturers, but we are not letting them get on the test beds because they have been financed by British industry which should reap their benefits first."

The ICA Steering Group's work has not been lost on the water authorities. Peter Thorpe, Regional Manager responsible for ICA development at Severn Trent Water Authority, says: "On the instrumentation side we have put quite a lot of effort into data collection but we are becoming increasingly interested in the control area."

The authority is working closely with manufacturers on instrument development, and, in some cases, meets some of the speculative risk capital needs, which may amount to thousands of pounds.

Severn Trent carried out a pilot exercise in Wolverhampton and is finding that it can work more efficiently by introducing facilities such as pump scheduling to match electricity tariffs; by making better utilisation of the storage capacity available to it in the reservoir systems; and by reducing high pressure areas in the water networks.

"We are also looking at telemetry on a wider front," adds Mr Thorpe. "In the past there has been a tendency to buy a piece of telemetry equipment and then to decide how best to use it.

"Now we are thinking a little more carefully about precisely how we want it to operate and specify the equipment in a way that will allow us to obtain the best out of it.

"We nave developed our own philosophy of control which, in effect, pushes control to the outstations as much as possible. Instead of bringing all the data back to the centre you can use local intelligence to reduce the data traffic from the plant level to the control centre."

The authority's use of local microcomputers and intelligent control systems allows it to concentrate its operational staff on areas which need attention. "In other words, we report more on an exception basis rather than on a regular routine reporting basis," Mr Thorpe adds.

The water industry is licensed to run its own communications networks. This is an area in which Mr Thorpe is particularly interested in as *chairman for the Water Authorities* Association's national committee on telecommunications, a small advisory group which advises the industry and liaises with the Department of Trade and Industry.

A number of water authorities have developed their own digital communications networks, instead of buying in services from carriers such as Mercury or British Telecom. And in some instances, they are providing their own radio links.

The industry uses mobile radio and telemetry scanning for monitoring remote plants, pumping stations and monitoring pressures in distribution systems. There are facilities available in remote locations so that *if equipment*, such as a pump, overheats, it will automatically trigger an alert for a fitter to attend to the problem.

The industry, says Mr Thorpe, uses a number of 1.5 gigaherz radio links, each of which can provide around 30 speech channels—"we can cater for our own internal telephone traffic and also provide communications for our mainframe computers to talk to each other," he adds.

"However, we also buy in some services from BT and this gives us a degree of security should we lose our own system or one of the other phones."

Boris Sedacca

If the Government's privatisation proposals are resurrected, a number of issues must be resolved before they can be implemented. Mark Bentley and George Yarrow report.

Policies the heart of regulation

A PRE-OCCUPATION with the mechanics of flotation, if privatisation does eventually happen, can easily distract attention from many of the most crucial regulatory issues. Yet the policy decisions on regulation that will have to be made could have significant implications for the industry's performance over many years to follow.

The general aim of regulation is to create a system of incentives for the water companies that would bring private and public interests into better alignment since, without regulation, profit-seeking behaviour could be expected to lead to abuse of monopoly power and diminished environmental protection.

With respect to the monopoly problem, for example, the goal is to channel the energies of management into increasing profits by improving internal efficiency rather than by raising prices to levels in excess of unit costs.

The regulatory policies adopted for telecommunications and gas provide the obvious starting point for thinking about options for the water industry. There are, however, major differences in market and organisational structures among the three industries and simple adherence to the earlier models is neither feasible nor desirable.

The prospects for increasing product market competition are much bleaker in the water industry than in telecommunications and (to a lesser extent) than in gas. Hence, of necessity, a greater part of the burden of consumer protection would be borne by the regulators. Moreover, the environmental issues raised by water privatisation introduce a layer of complexity that has been absent until now.

On the other hand, the regional structure of the water authorities provides opportunities for effective regulation that were less readily attainable in telecommunications and gas.

Partly as a result of conflicts of interest among the various authorities, the bargaining strength of management in the privatisation negotiations is weaker and policy formulation is less vulnerable to "capture" by the producers.

Equally significantly, the ability to construct long-run price controls based on comparative performance data opens up a number of possibilities for introducing more effective regulatory incentives.

One of the principal dangers of privatising the water authorities is that it could lead to a deficient level of investment. The industry is capital intensive and its principal assets are very durable.

Shareholders' returns are therefore highly sensitive to regulatory policy decisions over a relatively long time span and, while regulation can be expected to prevent the emergence of high profits, it is difficult to provide credible guarantees that allowable prices would not be pushed down below long run unit costs at some point in the future.

With a privatised system, this problem of providing long-term guarantees to investors would be exacerbated by the threat of re-nationalisation and by uncertainties about the principles to be used in setting prices beyond the initial indexation periods. *As a consequence of* these various factors there is a strong possibility that the private cost of capital could be excessively high.

The traditional method of attempting to induce adequate investment in capital-intensive, private monopolies is via explicit cost of service regulation of the US variety.

This can be viewed as an attempt credibly to guarantee shareholders' returns by fixing prices on a basis that can be presented as fair and reasonable to both investors and consumers, *and that is not therefore likely* to be radically challenged by one of the interested parties. In other words, by keeping prices close to unit costs (including capital costs) the regulatory bargain is likely to be relatively durable.

The chief drawback of cost of service regulation is that it tends to provide poor incentives for internal efficiency if cost reductions are passed quickly on to customers and thereby make little contribution to profitability.

In practice the weakness can be mitigated by a fairly lengthy regulatory lag. That is, while the overall aim is to keep prices in line with costs, prices are made invariant to the actual, controllable costs of the regulated firm for a period of several years. This is the system to which UK policy is tending.

Unfortunately, while a long regulatory lag tends to increase incentives for internal efficiency, it also tends to undermine the credibility of the regulatory bargain. Wide deviations of prices from costs will bring pressures from one side or the other for a change in the pricing formula.

Imagine, for example, a situa*tion in which water companies'* rates of return were rising to levels significantly greater than those in other UK industries. In these circumstances it is hardly likely that domestic ratepayers would be satisfied with the argument that regulators should remain passive until the end of the indexation period so as not to threaten efficiency incentives.

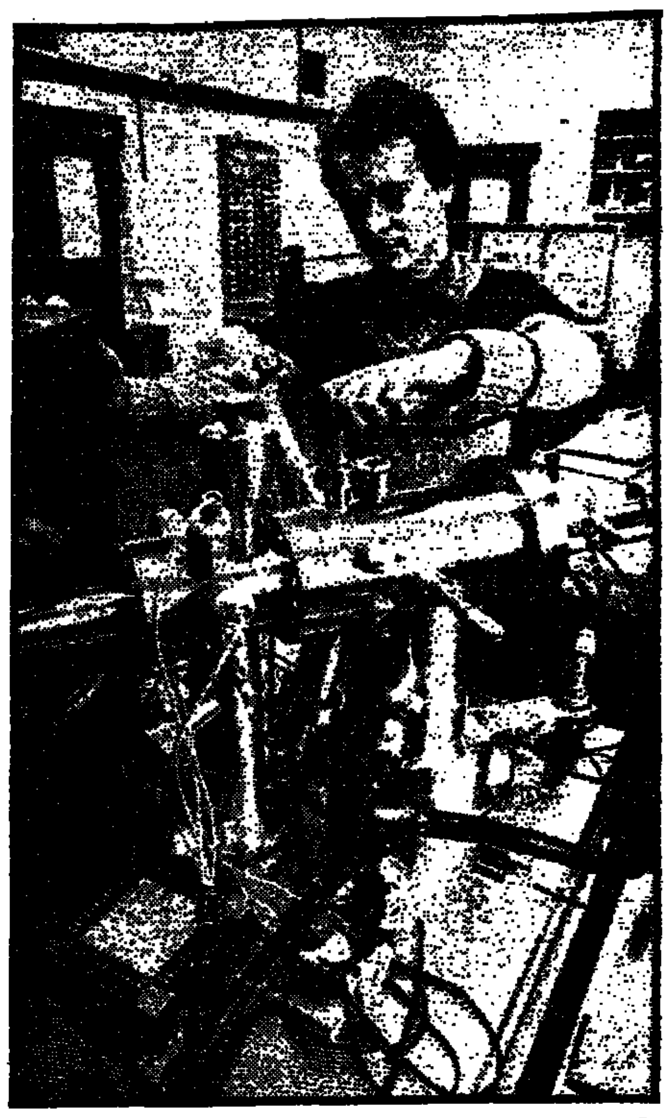
Similarly, although it is improbable that there would be any dramatic failures of supply if prices fell significantly below long run unit costs—since, given the capital intensity of the industry, operating profits would be positive in all but the direst of circumstances—cutbacks in investment programmes and chiselling on service standards could be anticipated.

The regional structure of the water industry offers a potential escape route from this dilemma, but adoption of that route would require a bolder and more far-sighted approach to regulatory policy than has yet been exhibited by the government. Put simply, water companies could be allowed to set prices that simultaneously ensure that *industry* revenues track *industry* costs (providing a durable basis for the regulatory bargain and lowering the cost of capital) and that the rates of return of *individual* companies vary with their *relative* performance (promoting rivalry and maintaining incentives for internal efficiency).

This type of enhanced cost of service regulation is, of course, far from being a panacea for all the regulatory problems raised by privatisation of the water industry. There remain the issues of maintaining an equitable balance of charges for metered and unmetered services; separating regulated and unregulated activities; determining appropriate levels of service standards; and managing a system in which water companies are both regulated *and* act as regulatory agents with respect to abstractions and discharges.

Moreover, it is clear that the present structure of the industry *may hinder the development* of efficient, private-ownership solutions to a number of these problems. For example, the existence of integrated, privately-owned water companies could make it difficult to move to a system of economic pricing for abstrac*tions and discharges.*

Nevertheless, if privatisation eventually goes through, there are opportunities for improving on what has gone before and for establishing a regulatory framework that has some chance of long-term survival.



Analysing organic trace components in water and related samples. The importance of clean water is fundamental in developing countries where supplies often must be provided from scratch to help reduce the incidence of disease

Focus on health

THE PARADOXICAL problems of water shortage and flooding, and the health benefits of water supply and the risk of water-related disease, in the developing countries, were important themes at the World Water '86 conference, in London, earlier this month.

The three-day conference, organised by the Institution of Civil Engineers, looked also at the technical questions involved in treatment and disposal of *industrial waste, and the opera*tion and maintenance of water distribution systems.

The conference was opened by Princess Anne, who spoke from direct experience in her work as President of the Save the Children Fund. "Teaching people the importance of clean water is one thing; having clean water available is quite another," she said.

She stressed the fundamental importance of clean water to human health and outlined some of the problems and dilemmas facing people and institutions who are attempting to bring water supplies to people in developing countries.

The pros and cons of large dams were "difficult to balance" because although they were sometimes needed for city supplies and for power, they hold back valuable silt and may be*come useless as the silt accumu*lates, Princess Anne said.

She appreciated the dilemma facing villagers whose only fuel is firewood. They were taught that they must boil their drinking water, but the destruction of trees added to the problems of deforestation and erosion.

The importance of irrigation and drainage in the production of food crops and staple fibres such as cotton was addressed by Mr Guy le Moigne, the World Bank's irrigation advisor, said the $1,300m allocated for irrigation in the fiscal year ending *on June 30 was a record.*

He forecast, however, that the increase would not be maintained and that 1986-87 spending would revert to about $1,000m.

Increased production of food under irrigation promotes health by reducing the risk of famine. The corollary is that irrigation water provides a breeding ground for mosquitoes which spread malaria, and for snails which incubate schistosomiasis.

"Dr A. A. El Gaddal, manager of the Blue Nile Health Project in Sudan emphasised: "When irrigation projects are being planned, the welfare of the residents should be given priority."

The need for a multi-disciplinary approach was underlined by Dr R. Bahal, of the World Health Organisation's division of vector biology and control, who said that two thirds of the world's population was at risk from malaria, and designers and medical people should work together to reduce breeding grounds for disease.

Prof David Bradley, Director of the Ross Institute of Tropical Hygiene and chairman of the session on health, suggested that engineers should consider consulting medical specialists just as they call in hydrogeologists and other professionals.

The lack of awareness among engineers of the health problems inherent in water projects was deplored by Prof M. J. Hamlin of Birmingham University.

A.B.

Irrigating fields at El Mahsama in Egypt's eastern desert region

Third World supplies fall behind

THE UN designated the 1980s as the International Drinking Water Supply and Sanitation Decade and promised to help developing countries to provide safe water and adequate waste disposal for their populations by 1990.

The cost, estimated at about $10,000m a year, although daunting, did not initially seem beyond the reach of concerted international effort. The need was clearly compelling.

The World Health Organisation estimated in 1977 that 30,000 people were dying each day because they lacked clean water and adequate sanitation. Half the illness in the world could be attributed to inadequate water supply and sanitation and 80 per cent of hospital beds were occupied by people with water-related disease. The Decade was devised to right this wrong.

However, by the end of 1985, 1,200m people in developing countries (excluding China) were still without clean water and 1,600m had no sanitation facilities. Despite the promises of the Decade, increased supply is not matching population growth and investment is not matching expectation.

In urban areas, 672m people out of a total population of 870m now have clean water, compared with 509m out of 699m in 1980.

Populations in rural areas, where most people still live, have risen less rapidly and figures of 581m with clean water in a total population of 1,610m show some improvement *on the 1980 figures of 472m in* 1490m.

Sanitation is just keeping pace with population growth in cities (with access for 518m compared with 386m in 1980). In rural areas however, sanitation shows only a marginal increase, from 207m to 255m.

The hope now is that the 150 countries which have drawn up Decade plans will start to meet the incremental increase in population with improved projects which make the best use of limited funds.

Mr G. Arthur Brown, chairman of the steering committee for the Decade and associate administrator of the UN development programme says: "An enormous task still lies ahead . . . but wherever you go in the Third World you will find Decade-generated activities.

"One of the United Nations aims is increased awareness of the water sector. Water is not getting its appropriate share of the budget."

Annette Bingham

PROFILE: Roy Watts

MANY BELIEVE that without Roy Watts, there would be no plan to privatise the water industry. Since he took over the chairmanship of Thames in 1983, he has had one overriding ambition—to turn his authority into one of the largest quoted companies in Britain, with himself at the helm.

He gives regular press conferences in Thames's London offices in Smith Square, across the road from Conservative Central Office and Transport House, at which the arguments for privatisation are continually hammered home.

Watts also hosts occasional gourmet lunches for the Great and the Good at the authority's magnificent premises in Rosebery Avenue, where the dining room's elaborate *panelling is by Grinling* Gibbons. Here, the drive towards privatisation is subtly geared.

Watts is quite clear why Thames should go private: he believes that it makes business sense. It is certainly true that Thames, of all the 10 authorities in England and Wales, is well placed to transfer to private hands.

It has little debt to speak off, a basically sound infrastructure and a captive clientele that is the most prosperous in Britain. Much large-scale investment is already under way, and the advent of the revolutionary London Ring Main will give the capital perhaps the most efficient regional water system in the world.

Thames would, almost certainly, prove a good investment.

Yet, there is something more. Watts was for many years the number two at British Airways and would like to have been given complete charge. Lord King got the job instead, and with it the chance to privatise the national carrier. Watts left not long afterwards to take over Thames.

Since then he has been an energetic and successful businessman, holding down directorships in two other companies while leading the good fight in the water sector against government imposed increases in consumer charges.

If he succeeds in his goal to force Thames out of the state arena, it will be a considerable personal achievement. The Government wants to privatise the industry; Roy Watts will not settle for anything less.

Walter Ellis

Roy Watts: hammers home the arguments

SECTION II – COMPANIES AND MARKETS
FINANCIAL TIMES
Monday July 28 1986

INTERNATIONAL BONDS

Floating rate sector bubbles with $2.25bn of issues

MANY FLOATING rate note traders are breathing a sigh of relief that their jobs are safe for another year, quipped one syndicate manager on Friday. The market absorbed $2.25bn of Eurodollar floating rate notes last week, some on very aggressive terms, with a good deal of aplomb, writes Alexander Nicoll in London.

Among other less fundamental effects of the week's FRN flood will be on the issuing houses' league table. Despite quibbles about the terms of specific issues, hats were off to Credit Suisse First Boston. The two FRNs brought by Salomon Brothers, including an exceptionally tightly priced deal for New Zealand, were also doing well.

It is all a far cry from the dumping of paper and slump in issuing activity – coupled with complaints about poor secondary market liquidity – seen earlier in the year. Then, after a massive $47bn of issues in 1985, the FRN market was left standing as investors switched their attention to the fixed-rate sector.

Several factors have combined to correct the FRN market's imbalance. Investors are back for several reasons, and the increased focus on trading for capital gain by some of them is boosting liquidity. Borrowers, so far, have not been arriving in terrifying numbers.

Even after the past two weeks' splurge, issues this year still total only $16.3bn, well below last year's pace. And issues have generally met demand for specific types of borrowers, avoiding an over abundance of unwelcome names and too many gimmicks.

The predominance of the straight sector of the previous few months left FRNs undervalued in the secondary market, with bank names – particularly some regional and thrift institution issues – seen especially as bargain buys. This was underlined by the lacklustre state of the fixed-rate market, which has barely responded to the most recent cut in US discount rate, with wide spreads over Treasuries persisting. Brave issuers who have attempted straight deals over the past two weeks have had some unpleasant experiences.

Japanese investors, mostly banks, are by far the largest buyers of FRNs, perhaps accounting for 60 to 70 per cent of the market. They are naturally keen to buy paper with spreads above Libor (London interbank offered rate) but other factors are also influencing them and perhaps creating a broader diversification of investors.

FRNs are increasingly looked on as money market instruments, vying for investors' attention with such alternatives as certificates of deposit and Eurocommercial paper. London interbank deposit (Libid) rates could thus be becoming a less important benchmark and yields on competing instruments could play a proportionately larger role in investors' decisions.

That means borrowers such as New Zealand can get away with – indeed, trade above par – an issue priced to yield below Libid. The short five-year issue for Chase Manhattan, which came at Limean, was also viewed in this way.

The progressive fall in interest rates has also made Japanese investors more attuned to trading their portfolio for capital gain. Apart from aiding market liquidity, this also helps borrowers to set yields below Libor.

There have also been a number of issues satisfying investors wanting a margin over Libor. Of the three Canadian bank issues offering ⅛ over Libor, two fared well and the third did not do badly. Investors liked the yield and were apparently not over concerned by the possibility that the coupons could be cut if the borrowers reduced their dividends.

Japanese investors also liked the collateralised issues from US savings and loan institutions, which are rated triple-A. Some investors are restricted to triple-A borrowers, so these deals coming above Libor are welcome – although the margin has narrowed progessively to just 5 basis points on the City Federal and East River Savings Bank's successful issues.

In buying US bank issues, investors seem to have overcome perennial doubts about US bank names, although they are no doubt still selective. Concerns about the health of the thrift industry are overcome by the collateral. Money centre names have been bought despite the recent flutter over Bank of America's recent poor results, and the news that Mexico is seeking a new $12bn loan package of which half is expected from banks.

Third World debt is not seen as likely to cause systemic shock. A West German bank, Commerzbank, got the best response of the week but Citicorp's was seen as just too ungenerously priced for such a frequent borrower.

On the supply side, demand for funding through FRNs is not yet excessive, especially as many borrowers also have access to floating rate funds elsewhere in the Euromarkets. Sovereigns have only small needs.

Despite some indigestion of new issues last week, most syndicate managers see room for more this week

Elsewhere, there was demand in isolated sectors. Swiss bond prices met some demand and were up by as much as a half-point on the week, but the West German, French and Ecu markets were dull. Friday saw the latest issue of warrants into government bonds, this time by Morgan Bank Nederland into Dutch state bonds.

Other niches targeted during the week included specialised demand for "bull-bear" bonds linked to stock market performances, including a DM 200m package from Deutsche Bank with redemption amounts depending on the FAZ index.

EUROMARKET TURNOVER
Turnover ($m)

Primary Market	Straights	Conv	FRN	Other
US$	1,708.8	152.8	3,845.8	1,845.4
Prev	2,182.4	43.5	887.1	2,705.2
Other	2,513.5	189.8	1,064.0	132.6
Prev	1,384.6	–	1,166.8	109.7
Secondary Market				
US$	28,187.2	1,074.8	14,752.1	5,648.3
Prev	21,418.3	1,170.2	13,097.1	6,814.6
Other	8,606.6	105.9	2,112.3	2,742.4
Prev	10,316.2	109.1	1,535.9	2,893.5

	Cedel	Euroclear	Total
US$	13,047.1	39,169.1	52,216.2
Prev	14,785.9	33,532.5	48,318.4
Other	7,547.0	9,920.1	17,467.1
Prev	8,066.5	9,243.3	17,309.8

Week to July 24 1986 — Source: AIBD

Southern Europeans take advantage of favourable climate

A PLETHORA of smaller deals for southern European borrowers, many of them renegotiations of existing borrowings, continues to keep the Eurocredit and Euronote market ticking over as the holiday period gets under way, writes Peter Montagnon in London.

Despite signs of resistance in some sectors of the banking community, notably Japanese institutions, deals for Italian borrowers are cropping up in what bankers say is an especially haphazard way.

Last week, for example, two deals for Isveimer, the regional development authority, were in the market with a third hotly rumoured.

One is an Ecu 60m five-year credit carrying a margin of 5 basis points and led by First Chicago, the other a deal for DM 70m which could be increased and is led by Chemical Bank International. This carries interest at 6¼ basis points for the first five years, rising to 10 basis points for the next two.

Bankers say the Isveimer deals represent the tip of an iceberg that has been growing this year. As the market for publicly announced loan facilities contracts, more banks have become involved in smaller bilateral and discreet club deals of which these are just two.

Such operations are inevitable in a market becoming so heavily tilted in favour of borrowers, but where the long downward slide of loan margins may now be bottoming out. They allow borrowers to continue raising money at favourable rates without exposing the terms they receive to the public.

The banks that go into them theoretically have the opportunity of selling the assets on in the secondary market, although many said that this was unlikely to be the case with five-year Isveimer paper at a margin of 5 basis points. Isveimer would be unlikely to attract such a low margin even on very short-term paper, they said.

This flattening of margin curve with less and less distinction between short-term and long-term rates is one reason why some bankers argue that loan margins have now reached their lows.

But that is not to say that terms could quickly start to rise in favour of lenders. There is still too much liquidity around and too much competition from other market sectors such as floating rate notes and commercial paper.

Also, Italian borrowers represent a special case as they have been very active while other borrowers stayed away from the market. If Sweden would only borrow again, it could easily obtain a jumbo loan at just 1/16 over Libor, bankers say.

Other new deals in southern Europe include a renegotiation of a loan arranged in 1984 for Electricidade de Portugal comprising £36m and Ecu 41m. The maturity on the deal is being left unchanged at 1991 but the margin will be cut from its present level of ⅜ per cent. National Westminster as lead manager said on Friday the new margin would start at 20 basis points for the next two years and rise to 25 basis points thereafter.

Chase Manhattan has disclosed the terms on its $100m, eight-year credit for Public Power Corporation of Greece. The deal is to carry a ⅜ per cent margin, the same as that on the recent $370m credit for the Bank of Greece, but the grace period will be one year shorter at five years.

Among loans already in the market, the $300m facility for Credit Foncier has met a positive reception with about $260m raised by last Friday. Most of this money comes, however, from French and Japanese banks, which may have to be scaled back under French Treasury rules. Interest from banks in other countries was more moderate, although there is demand for the transaction, especially from US banks.

Nova Scotia Resources has launched a $125m Euronote facility through CIBC. The borrower is the mining company belonging to the provincial government which is guaranteeing the deal – a rare appearance of a Canadian province in this market.

The facility is accompanied by a $80m underwritten facility on which sales of notes will carry a maximum margin of ⅛ per cent. The basic facility fee is 8 basis points although the entire underwritten portion can be held in reserve for a lower fee of 4 points.

Hospital Corporation of America has launched a $200m Eurocommercial paper programme with Chase Manhattan, Salomon Brothers and Swiss Bank Corporation as dealers. Morgan Guaranty and CSFB have been appointed dealers in a $150m commercial paper programme for Carrefour, the French retailer, which launched a $150m loan facility through CSFB earlier this month.

Texaco and Shell Oil quarterly earnings hit by falling prices

BY OUR NEW YORK STAFF

TEXACO, the US oil group, and Shell Oil, the American subsidiary of Europe's Royal Dutch/Shell, both recorded significant second-quarter earnings reverses, reflecting the slump in crude oil prices.

Net income at Texaco amounted to $185m, or 77 cents a share, down from $306m, or $1.28 a share, in the same period last year. Revenues tumbled from $11.7bn to $7.9bn.

In the first six months of the year, Texaco earned $513m, or $2.14 a share, compared with $625m, or $2.56 a share in 1985, as sales fell to $17.5bn from $23.7bn.

Mr John McKinley, chairman, said that the increase in the group's returns from its refining, marketing and supply activities "was not substantial enough to compensate for the depressed worldwide producing results."

At Shell, net income fell to $219m from $337m, while revenues declined to $4.16bn from $5.10bn in the second quarter. For the first six months of the year, earnings dropped to $495m from $633m, while sales slid to $8.33bn from $9.85bn.

Mr John Bookout, chairman, said that the current volatility of crude oil and product prices made the near-term earnings outlook uncertain but that oil and gas exploration and production profits were likely to remain at depressed levels.

● Pennzoil, the Texas oil group which is suing Texaco for $11bn in a case related to Texaco's purchase of Getty Oil, also suffered a second-quarter setback. Net income fell to $25.2m, or 51 cents a share, from $52.8m, or $1.12 in 1985. Sales fell to $480m from $565m, and for the first six months were down to $991m from $1.1bn.

United Asian Bank to raise capital after loss

BY WONG SULONG IN KUALA LUMPUR

UNITED ASIAN Bank is to raise 152m ringgit ($58m) through a two-for-one rights issue to repay a loan of a similar amount and to restore its capital adequacy ratios after reporting a massive after tax loss of nearly 90m ringgit for the year ended in December 1985.

In the issue document, Tan Sri Kishu Jethanand, UAB vice chairman and a leading shareholder, said the loan was owed to Bank Bumiputra and Bumiputra Merchant Bankers.

UAB is proposing to issue the rights at one ringgit par per share. The bank's paid up capital would be increased to 238.7m ringgit after the issue while its net tangible assets would increase from 17 to 72 cents per share.

The 90m ringgit loss incurred by UAB is the biggest suffered by a Malaysian bank in 1985, which was a bad year for the banking industry because of the economic recession and the need to make heavy provisions for bad debts arising from compliance with the tough directives on non-performing banks issued by the central bank.

In 1984 UAB also suffered an after-tax loss of 21m ringgit.

Tan Sri Kishu said the capital raised from the rights issue would help recovery although the bank was still expected to incur a loss this year.

All commercial banks have to maintain a minimum capital ratio of 4 per cent of total authorised assets as defined by the central bank.

INTERNATIONAL CAPITAL MARKETS

US MONEY AND CREDIT

Volcker warns but short-term view prevails

A SIZEABLE crowd of bond market analysts and economists stuffed themselves like sardines into a muggy room in Washington last week to listen to what Mr Paul Volcker, chairman of the Federal Reserve Board, had to say about the *economy and monetary policy*. But the market meandered on as though it had not heard a word.

Prices over the week slipped back for five straight days in succession, pushing the yield on the 30-year Treasury long bond from 7.18 per cent at the beginning of the week to 7.42 per cent at the end, its highest point for a month. Short-term rates moved up more slowly, but they rose steadily nonetheless, leaving the three-month Treasury bill rate *standing* at 5.81 per cent by Friday against 5.71 per cent at the end of the previous week.

Yet there was nothing in Mr *Volcker's testimony* to indicate that the Fed had any plans to reverse its present accommodative monetary policy, nor that the central bank held any great fears that the economy would suddenly surge ahead and impose fresh strains on the financial markets. Indeed, the main drift of the chairman's evidence pointed in the other direction.

US MONEY MARKET RATES (%)

	Last Friday	1 week ago	4 wks ago	12-month High	12-month Low
Fed Funds (weekly average)	6.37	6.48	6.87	8.91	6.37
Three-month Treasury bills	5.81	5.70	6.00	7.40	5.71
Six-month Treasury bills	5.89	5.77	6.99	7.48	5.78
Three-month prime CDs	6.33	6.32	6.63	8.10	6.30
30-day Commercial Paper	6.25	6.30	6.70	8.05	6.25
90-day Commercial Paper	6.20	6.25	6.60	8.00	6.20

US BOND PRICES AND YIELDS (%)

	Last Friday	Change on week	Yield	1 week ago	4 wks ago
Seven-year Treasury	99⅝	−1⅛	7.27	7.05	7.35
20-year Treasury	113⅝	−3⅜	7.89	7.70	7.85
30-year Treasury	97⅞	−3	7.43	7.18	7.28
New 10-year "A" Financial	N/A	−1⅞	8.76	8.50	8.50
New "AA" Long utility	N/A	−1⅞	9.38	9.25	9.25
New "AA" Long industrial	N/A	−2⅞	9.25	9.00	9.00

Source: Salomon Bros (estimates).

Money Supply: In the week ended July 14 M1 fell by $1bn to $673.1bn.

He spent a long time explaining that the economy was under dire threat of being derailed by the refusal of foreigners to stimulate demand in their own markets and thereby help US exports. He hinted that the Fed was sufficiently nervous about the weak links in the American financial structure — the energy *and farming sectors and* the hard-pressed banks which serve them — to want to maintain downward pressure on interest rates. He gave the impression *that the central bank felt* that there would be no compelling necessity for some time to raise rates either to defend the dollar or to protect against renewed inflation.

But while all these comments tended to point in the direction of lower rates over the longer term, the market was busy responding to shorter-term considerations. The first of these was the Treasury refunding programme. After doubts whether the refunding could take place at all because of procedural wrangles in the Senate, a Government official said on Tuesday that the department would be able to start the three-day auctions on August 5, adding that details would be given next week.

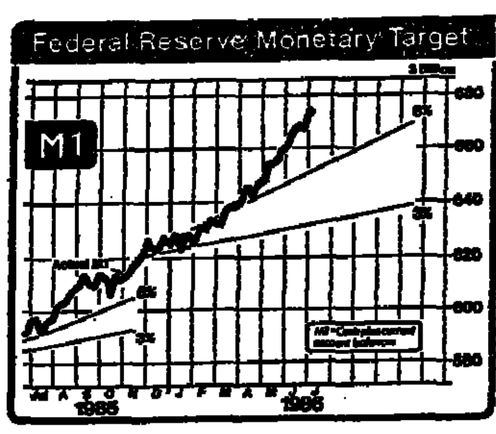
Estimates are that the Treasury will be calling for between $28bn and $30bn — enough to give the market jitters at the moment, especially with fears that the Japanese may be less willing participants than in the past.

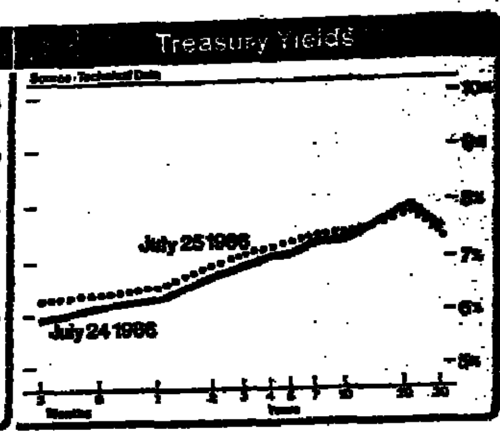
The second factor was a sudden and unexpected reversal in the direction of the economic statistics published during the week. For some time most of the figures have pointed to a continuing sluggishness in the economy. But the statistics on durable goods orders in June showed that they advanced by a solid *2.1* per cent in June, following a down ward revised 1.1 per cent decline in May.

In the wake of these figures, the Commerce Department's estimates of weak Gross *National Product growth in the* second quarter of 1.1 per cent was virtually ignored as traders looked to the upward first quarter revision — restated at *3.8* per cent against the original 2.9 per cent estimate — and the revised estimate of stronger 1985 growth to 2.7 per cent from 2.2 per cent. These unexpected upward revisions threw the market off balance.

"The prevailing market view seemed to be that hints of *stronger* real GNP from the sluggish second quarter pace would tend to forestall Federal Reserve consideration of a further discount rate cut," said Mr David Jones of Aubrey Lanston, in his weekly commentary.

Mr Jones went on to stress the diverging pulls of short-term *and long-term* considerations at present. His view is that the Fed will want to hold a stable policy stance until it becomes apparent whether third-quarter economic growth is accelerating in response to its "persistently accommodative stance and pronounced declines in interest rates." He emphasised that the GNP figures showed a healthy 3.4 per cent *increase in real final sales last* week, a point that has been picked up by many analysts who believe that an expansion is now finally getting under way.





There are plenty of analysts at present, however, who are willing to take exactly the opposite position, arguing that the economy is drifting into the doldrums in the second half of the year. Forecasts of virtually zero growth are not hard to come by on Wall Street these days, and some economists expect that this week's unemployment figures will underscore the deceleration of the economy.

Like Mr Volcker, many of these specialists believe that the huge US trade deficit, over which the Fed has very little influence, may stay stubbornly high and exercise a continued depressant effect on growth. That could well, of course, spell more gains for the bond market if pressure from the US finally brings about further co-ordinated interest rate cuts in other countries. Yet the earnestness of Mr Volcker's remarks last week indicated the difficulties he at least expects in keeping the US and its allies in step.

Terry Dodsworth

UK GILTS

The Bank provides an index-linked enigma

ALL EYES may have been on Mr Paul Volcker, chairman of the US Federal Reserve Board, at the start of last week, yet it was the UK gilts market that made the running. Mr Volcker's testimony to the Senate banking committee prompted some analysts to warn *that gilt yields* would move swiftly back into double figures. In the event, there was enough room for interpretation to bring the FT *Actuaries* 25-year high coupon yield down to 9.52 per cent and narrow the spread over the US long bond by 30 to 210 basis points.

On *Friday the Bank of* England demonstrated that Mr Volcker is not the only central banker who knows how to frame a good riddle. The Bank *offered its own* enigma with the issue of £400m of index-linked stock to meet demand from a specific investor.

It is most irregular for the Bank *to provide explanations* of why it is issuing a particular stock. While the explanation itself was clear enough, the fact of its provision was enough to perplex many in the gilts market.

Investors have already taken *out £100m of 2½ per cent* Treasury Index-linked 2016 so far this year, and the new £400m tranche is a sizeable chunk for the £10bn index-linked sector. *It* will be issued by tender, closing date July 30, with £40 paid immediately and the remainder due on September 8. No minimum tender price is set. The fully-paid 2016 index-linked stock closed on Friday at 96¾, yielding 3.41 per cent real at 5 per cent inflation.

The Bank's statement imme*diately started the market* guessing which large pension fund has inflation-linked liabilities it wishes to match 30 years hence.

It will not have escaped the observer that British Gas has, during its years as a state corporation with the Government standing behind it, been in the *habit of increasing its pension* payments in line with the cost of living. In its preparations for flotation in the second half of November, the corporation has been reassuring its employees that existing pension practices will be continued.

While it stressed to employees that index-linking of pension payments has not been and will not be a hard and fast guarantee, British Gas *is* incorporating existing practices into the pension scheme rules, thus formalising the custom of cost of living increases.

The 2016 stock is not the very longest index-linked gilt available—that distinction belongs to IL 2½ per cent 2020. Even with the 2020, however, a woman retiring at the usual age of 60 has only to live to 94 to throw *her pension* scheme's asset mix out of kilter. Pension fund managers may soon be banging on the Bank of England's door for a longer *stock*.

The Bank's purpose in explaining the new issue was at least partially fulfilled, for the announcement of the tranche *caused only* a *mild setback to* the rest of the market. Had the authorities simply tossed out another £400m of stock, with probably all £800m of 8½ per cent Treasury 2007 still on their hands and standing ⅝ of a point expensive to the market, the inference might have been that a quiet note of desperation was creeping into their funding programme.

The explanation that a single investor wanted a substantial portion of the new stock, and the fact that the second payment is spread all the way into September, served to suppress that anxiety, although there are still a number of analysts in the City worried over the likely level of funding in the rest of the year.

This week the market reverts to contemplating the more usual puzzle of whether the Japanese and American buying that sustained last week's rally will persist, and of whether the *pause in economic growth* shows any signs of ending.

The Confederation of British Industry's quarterly industrial trends survey on Tuesday, the *only major UK economic* statistic of the week, may offer some clues on this point.

George Graham

FT/AIBD INTERNATIONAL BOND SERVICE

US DOLLAR STRAIGHTS	Issued	Price	Chg. on week	Yield
AHFC O/S Fin 11¾ 94	100	104⅞	−0⅛	10.76
AIDC 11 89	75	107⅛	−0⅛	7.73
Alcan Australia 8½ 89	25	98⅞	0	8.68
Amer Saving 12 89	125	105⅞	+0⅛	9.37
Amer Saving 12¾ 89	100	106⅞	0	9.47
Asian Dev Bk 11¾ 93	100	116⅛	+0⅛	8.55
Australia 8⅞ 91	80	102⅝	+0⅛	8.16
Australia 11⅛ 90	100	112⅜	+0⅛	7.58
Australia 11⅝ 98	100	120⅛	−2⅝	8.84
Queensland Gvt 11⅞ 89	100	110⅝	+0⅛	7.79
RBC 11½ 90	100	108⅞	0	8.41
Rural Bk Aust 12 91	90	110⅝	+2⅛	8.98
Sanwar Bank 11⅞ 92	150	113⅛	0	8.70
Sanwar Intl 11⅞ 92	100	114⅝	+0⅛	8.22
Saskatchewan 10⅞ 92	100	111⅞	−0⅛	8.01
Saskatchewan 10⅞ 90	125	108⅞	−0⅛	7.82
Saskatchewan 11⅞ 89	100	111⅞	−0⅛	7.64
Saskatchewan 15 92	150	130⅛	−0⅛	8.39
Saskatchewan 16 89	125	118⅛	−0⅛	7.81
Scot Intl Fin 10⅞ 90	50	108⅛	0	8.67
[illegible]				

CONVERTIBLE BONDS				
Daiwa Secs 5½ 98	80	617	+28⅞	−3.12
Elektrowatt 5 98	54	137⅞	−5⅞	−3.78
Fuji Bank 2⅝ 2000	100	189⅞	+19⅞	3.82
Fujitsu 3 89	180	111⅞	+2⅞	−1.56
Intec Inc 3 99	50	243	+10⅞	0.39
Kyowa Hakko 5⅞ 97	40	385	+5⅞	3.92
LASMO 9⅞ 99	44	87⅞	−0⅞	185.29
Murata Mfg 3⅞ 2000	100	129⅞	+1⅞	18.88
Nippon Oil 3⅞ 98	60	185	−8	−1.89
Northern Telecom 7 98	50	110⅞	+2⅞	14.81
Ono Pharm. 3⅞ 98	60	284	+10⅞	0.04
[illegible]				

WARRANTS	Expiry date	Price	Chg. on week	Ex. yield
[illegible]				
Texaco Cap 12⅞ 92	1/6/87	67	−8	−3.81
Wlls Frgo A 12⅞ 91	27/12/88	162	−1⅛	8.72
Weyerhsr C 11⅞ 90	15/11/87	82⅞	+0⅛	8.61

STRAIGHT BONDS: Yield to redemption of the mid-price. Amount issued is expressed in millions of currency units except for yen bonds, where it is in billions.

FLOATING RATE NOTES: US dollars unless indicated. Margin above six-month offered rate (‡ three-month; § above mean rate) for US dollars. C.cpn=current coupon.

CONVERTIBLE BONDS: US dollars unless indicated. Prem=percentage premium of the current effective price of buying shares via the bond over the most recent share price.

WARRANTS: Equity warrant prem=exercise premium over current share price. Bond warrant ex yld=exercise yield at current warrant price.

Closing prices on July 25.

INTERNATIONAL CAPITAL MARKETS AND COMPANIES

Return to profit at Texas Instruments

By Louise Kehoe in San Francisco

TEXAS Instruments, the largest US semiconductor manufacturer returned to modest profitability in the second quarter for the first time since the first quarter of 1985. Second quarter net income was $12.3m, or 35 cents per share, compared to a loss of $3.9m (16 cents a share) in the same quarter last year. Sales were flat at $1.24bn.

For the first six months TI reported a net loss of $11.5m, which included a charge of $10.8m for the redemption of debentures in the first quarter. Sales were down slightly at $2.39bn compared to $2.52bn in first half of 1985.

TI said that its semiconductor business operated at a small loss in the second quarter but that the financial performance of this sector has improved over the same period a year ago and the first three months of 1986. Orders from US industry increased in the second quarter but distributor orders declined, the company said.

In its data systems business, TI turned a profit

Sydney Futures fees revised

SYDNEY Futures Exchange, which has recently been turning over record volumes, is to simplify and cut sharply its clearing and exchange fees from August 1, Alexander Nicoll reports.

The total cost of a round turn —purchase and sale—will fall from A$4.30 to A$2.50 (US$1.50) though concessional rates for same-day round turns have been withdrawn. Locals—individuals who trade for their own account, mostly by making day trades—will instead receive rebates.

Mr Les Hosking, SFE chief executive, said the exchange has begun a comprehensive review of its clearing arrangements. "The clearing fee reductions are an interim measure to bring the charges closer in line with those on other exchanges while this review is conducted."

The SFE and the London International Financial Futures Exchange (Liffe) plan a link under which US Treasury bond and Eurodollar deposit futures traded on both exchanges will be interchangeable.

CORPORATE FINANCE

Standard Oil faces up to reality

"WE WANTED to reflect the change in our strategy in our balance-sheet and show our investors what we are made of," says Mr John Browne, the young financial specialist from British Petroleum, who is settling down to a new career in Cleveland, Ohio, as chief financial officer of Standard Oil, BP's 55 per cent-owned US subsidiary.

Standard Oil's new management team has been in place less than four months but is already beginning to show its mettle. Last week the company announced $1.43bn of pre-tax charges, of which $610m was related to the write-down of oil and gas exploration leases and two producing properties. Another $460m was set aside to cover the losses on the sale of a motley collection of non-petroleum assets and the group's coal business was written down by $270m.

The special charges—coming less than eight months after the previous management team had announced $1.86bn of write-offs—were dismissed by some analysts as peculiar to the problems of Standard Oil. They argue that the company had become bloated from the profits of its huge Alaskan oil reserves and needed to be slimmed down.

However, several US oil majors are nervously aware that Standard's new management—very much the newcomers on the block—has highlighted the painful fact that the value of most US oil companies' properties are probably worth several billion dollars less than they were 12 months ago. To date, Standard Oil is the only major company to have publicly acknowledged this fact.

It argues that at $15-a-barrel the average oil explorer cannot make money looking for oil in the lower 48 states of the US. Consequently, it is abandoning 1.8m acres, or about half of its total exploration acreage. It is also severely curtailing its exploration activity in the frontier areas of Alaska where the experts say that the giant oil fields of tomorrow are waiting to be found.

Standard's new team is more pessimistic than most on the outlook for oil prices and is talking about prices averaging $15 a barrel over the next three to five years. Since the company has 2.6bn barrels in oil reserves—far more than most other US oil companies—it can afford to be bearish about oil prices, and still stands to profit handsomely if it is proved wrong.

However, a number of analysts believe that other US oil majors will have to follow Standard Oil's example. Standard & Poor's (S & P), the US credit rating agency which left Standard's credit rating unchanged after the latest write-offs, said that Standard's move confirmed that economic drilling opportunities in the US have been substantially reduced. This is an industry dilemma that most oil companies have yet to address," said S & P.

In addition to the write-offs on its oil and gas operations, Standard is slimming its sprawling coal operations which holds over 1.3bn tons of coal. The previous management's plan was to put increasing reliance on coal as the Alaskan oil ran out. Standard Oil is reversing this policy. "Our strategy is to harvest the business, run it for cash and maybe one day exit the business," says John Browne.

Standard has already announced that a substantial part of its industrial operations are up for sale, and Wall Street analysts suggest that it may dispose of its interests in its two smaller copper mines in New Mexico and Arizona. The group is retaining a handful of industrial interests which have good growth opportunities such as its acrylonitrile operations, used in the plastics and fibres business, and its QIT titanium dioxide business, which is the biggest of its kind in the world.

The final element in the new Standard Oil is its Bingham Canyon copper mine, whose fortunes have been transformed as a result of a labour settlement earlier this month. The group's management is confident that it now has the sort of cost structure in place which will justify modernisation of America's biggest copper mine. Production costs have been lowered to 35 cents a pound which should ensure that it will make a comfortable return even at today's low copper prices.

The net result of last week's write-offs is that "we have high-graded the equity in our balance sheet," says John Browne, who has produced the first public figures of the net asset position of the various segments of the business. The exploration and production operations are now on the balance sheet at $7.4bn, refining and marketing is worth another $1.9bn, the coal business is valued at $0.2bn, metals mining at $0.9bn, and the chemicals and industrial products operations at $1.0bn.

"Our balance sheet does now represent something meaningful rather than hiding away bad news," says Mr Browne.

William Hall

Freeport agrees to buy Petro-Lewis for $440m

BY OUR FINANCIAL STAFF

PETRO-LEWIS, THE struggling Denver-based oil and gas group which warned earlier this year that it might have to seek liquidation or bankruptcy reorganisation, is to be bought in a complex $440m cash deal by a group headed by Freeport-McMoRan, the US natural resources concern.

Freeport has signed a letter of intent covering the acquisition of Petro-Lewis and American Royalty Trust, a limited partnership in which the Denver company has a 23 per cent stake.

The newly-formed acquiring group consists of Freeport, another investor designated by Freeport, and a new entity owned by Petro-Lewis' employees and management that would own 18 per cent of the acquired companies.

Apart from the cash consideration, the buyers will also refinance $275m of Petro-Lewis and American Royalty's debt. Total financing required will thus be abuot $750m, of which Freeport said it is prepared to commit $150m initially. The remainder is likely to be raised for Freeport by Kidder Peabody.

Petro-Lewis expanded fast in the early 1980s by borrowing heavily to finance the purchase of oil and gas assets which were then sold to wealthy individuals as limited partnerships. However falling energy prices have stemmed the cashflow from the properties and reduced Petro-Lewis' ability to pay the banks.

The rapid fall in oil prices this year has forced the company to omit preferred dividend payments due this year, and in May it took a $332m third-quarter writedown on oil and gas properties.

Arabs propose takeover of French shipbuilder

BY PAUL BETTS IN PARIS

A GROUP of Arab investors has shown interest in aquiring a large part of the assets of Normed, the bankrupt French shipbuilding group. The company was recently forced to file for bankruptcy after the French right-wing government decided to cut back subsidies to shipyards.

Normed owns three shipyards including La Ciotat and La Seyne on the Mediterranean and Dunkirk in the north. In all, the company employs 6,800 workers.

Intra Invest, a Lebanese-based financial group headed by Mr Roger Tamraz, is interested in La Ciotat, while an undisclosed group of Arab and Belgian investors is interested in the Dunkirk yard.

The pro-Communist CGT union has revealed a takeover proposal by Intra Invest for La Ciotat and the union says it is prepared to negotiate with the Arab group. The unnamed group of Arab and Belgian investors interest in the Dunkirk yard was disclosed by Mr Claude Prouvoyeur, the right-wing senator and mayor of the city.

However, the French Government, which has announced the programme of incentives to help workers made redundant by the eventual closure of the Normed yards, has so far adopted an extremely cautious attitude towards the proposals.

Moreover, there are also reports that Alsthom, the French engineering and shipbuilding group owned by the Compagnie Generale d'Electricite (CGE) group, is studying a plan for La Ciotat.

Brierley wins 16% stake in NZI

BY DAI HAYWARD IN WELLINGTON

BRIERLEY INVESTMENTS, the New Zealand-based holding company of Mr Ron Brierley's international investment group, has bought a 18.7 per cent stake in NZI, the insurance and financial services group, for NZ$144m (US$78m).

The move was interpreted as a defensive one that will help protect NZI from possible unwelcome takeover bids. Brierley has given an undertaking that it will not acquire more than 20 per cent of NZI.

There have been rumours recently that a bid for Brierley might be in the offing. Last Wednesday the share price jumped by 11 cents to NZ$200.

This was the price at which Brierley bought its 72m shares. Just more than half of this figure was bought from Fletcher Challenge, the forest products and manufacturing group, and the remainder in the market.

NZI is New Zealand's fourth largest company by market capitalisation, with a market value of NZ$1.1bn. It has assets of about NZ$5.7bn and reported annual net profits of NZ$85.2m for the last financial year. It has also recently announced that it would apply for a full banking licence once the country's new banking legislation comes into force later this year.

NEW INTERNATIONAL BOND ISSUES

Borrowers	Amount m.	Maturity	Av. life years	Coupon %	Price	Book Runner	Offer yield %
U.S. DOLLARS							
Burlington Ind. §‡	75	2001	15	7	100	Kidder Peabody	7.000
Kumagai Gumi §‡	100	1993	7	3½	100	Daiwa Europe	3.500
Mitsubishi Plastics ¶‡	30	1991	5	2⅞	100	Nikko Secs (Europe)	2.875
Lorimar Telepictures §‡	100	2001	15	6	100	Drexel Burnham Lambert	6.000
Mitsui Petrochemical ¶‡	70	1991	5	2¾	100	Nomura Int.	2.750
Japan Coated Paper ¶‡	25	1991	5	2⅞	100	Nikko Secs (Europe)	2.875
Newmont Mining §‡	100	2001	15	7	100	Salomon Brothers	7.000
New Zealand †‡	500	1993	7	(a)	100.275	Salomon Brothers	–
City Fed. Savings Bk (b) †‡	75	1993	7	5bp	100	Shearson Lehman Bros.	–
DeBartolo Capital Corp. ‡	120	1996	10	8	100	Chemical Bank	8.000
Mori Seiki Co. ¶	60	1991	5	(2⅞)	100	Yamaichi Int. (Eur)	*
Commerzbank †‡	200	1993	7	(c)	100	Commerzbank	–
Osaka Gas ‡	50	1993	7	8⅛	101⅜	Nomura Int.	7.986
Tec Electronics ¶	50	1991	5	(2⅞)	100	Nomura Int.	*
Japan Dev. & Con. ¶	30	1991	5	(2⅞)	100	Nikko Secs (Europe)	*
Nikken Chemicals ¶	20	1991	5	(2⅞)	100	Daiwa Europe	*
Inageya Co. ¶	30	1993	7	(3¾)	100	Nomura Int.	*
Royal Co. §	60	2001	15	(2⅝)	100	Nippon Kangyo K'maru	*
Bank of Nova Scotia (f) †‡	300	2085	99	⅛	100	CSFB	–
Citicorp (g) †‡	350	2001	25	¼	100	CSFB	–
Chase Manhattan †‡	250	1991	5	(c)	100	Chase Manhattan	–
CIBC (f) †‡	250	2085	99	⅛	100	CSFB	–
National Bk Canada (f) †‡	200	2085	99	⅛	100	CSFB	–
National Bk Brunei (f) †‡	30	1991	5	⅛	100	Bqe Gutzwiller, K.B.	–
Nippon Shinpan ¶	250	1991	5	(2¾)	100	Daiwa Europe	*
Nippon Shinpan ¶	50	1991	5	(2¾)	100	Nomura Secs (S'pore)	*
Nordic Inv. Bank (k) ‡	100	1993	7	7½	100¼	Morgan Stanley	7.453
Sumitomo Corp. O'seas (j) ‡	60	1989	3	3	100	Daiwa/Sumitomo Trust	–
East River Savings Bk (b) †‡	100	1993	7	5bp	100	Salomon Brothers	–
D-MARK							
EDF ‡	300	1996	10	6⅛	99¾	Deutsche Bank	6.159
Deutsche Bk Fin. (j)‡	200	1991	5	3	100	Deutsche Bank	–
SWISS FRANCS							
Mitsui Petrochemical** §‡	100	1991	–	⅞	100	UBS	0.877
Mori Seiki Co.** ¶	30	1993	–	(1⅛)	*	Credit Suisse	*
Ando Construction** ‡	40	1991	–	5⅛	100	Dai-Ichi Kangyo Bk	5.125
IADB ‡	100	1994	–	5⅜	100	Credit Suisse	5.375
IADB ‡	125	1998	–	5⅝	100	Credit Suisse	5.625
Daiki Aluminium** ¶	25	1991	–	(1)	*	Handelsbank	*
IBM World Trade** ‡	350	1996	–	4⅞	99½	SBC	4.940
Kitz Corporation** ¶	70	1991	–	(1)	*	Credit Suisse	*
Seikitokyu Kogyo** ¶	40	1991	–	(1)	*	Swiss Volksbank	*
FRENCH FRANCS							
Saint-Gobain (e) ‡	600	1996	10	8⅛	101	CCF	7.976
STERLING							
Pilkington Bros. ¶‡	35	1991	5	9½	115	J. H. Schroder Wagg	5.944
ECUs							
EDF (d) ‡	100	1998	12	7⅛	98	BNP	7.382
Stanley Atlantic ‡	55	1993	7	7¾	100⅞	Morgan Guaranty	7.584
YEN							
Kansallis-Osake-Pankki †‡	10bn	1991	5	(h)	101⅝	Yamaichi Int. (Eur)	–
Nordic Inv. Bank ‡	15bn	1995	9	5¾	101	Daiwa Europe	5.605

* Not yet priced. ‡ Final terms. ** Private placement. § Convertible. † Floating rate notes. ¶ With equity warrants. Φ With bond warrants. ‖ Currency linked. (a) Equal to 6m Libid. (b) 5bp over 3m Libor. (c) Equal to 6m Limean. (d) Additional Ecu100m tap. (e) Refixed annually – TME + 20bp. During first yr issue can be exchanged into 7¾ 1996 bond. (f) ⅛ over 6m Libor. (g) ⅟₁₄ over 3m Libor. (h) Reverse FRN, linked to yen 6m Libor (j) "Bull"-"Bear" bond, linked to share index. (k) Partly-paid. Note: Yields are calculated on AIBD basis.

UK COMPANY NEWS

F & H valued at £12.6m through USM placing

BY RICHARD TOMKINS

F & H Group, the supplier of industrial control systems being floated on the USM, comes to the market today with an offer *for sale which will value it at* £12.6m.

The issue is the first to be sponsored by the stockbroking firm Scott Goff Layton, since it took its new title of Smith New *Court Agency and linked with* N. M. Rothschild, the merchant bank, and Smith Brothers, the stockjobbers.

Smith New Court Agency is offering 3.6m shares—some 38 per cent of the equity—at 134p each. Most of the proceeds will be used to buy out the company from one of its founders, Mr Dennis Fine, and his family.

F & H started business as an *electrical contractor in 1967*, but in the early 1970s began developing control systems for industrial plant. Its systems are now mainly based on microprocessor technology and are used in a variety of industrial and commercial applications, although the car industry accounts for 60 to 70 per cent *of turnover.*

The company operates in a highly fragmented industry with about 180 other small businesses *and claims a market* share of around 3 per cent. It says its closest competitors are *Switchgear & Instrumentation,* a subsidiary of N. G. Bailey, and Servelec and Deeside Automation.

The prospectus shows pre-tax profits rising from £120,000 in 1982 to £1.8m in the year to last April, on turnover up from £1.9m to £8m. Progress has not always been steady but the company says its sales side has been strengthened and contracts are now flowing more smoothly.

There is no profits forecast for the current year so F & H is coming to the USM on an historic mulitple of 11.1. It offers a notional gross dividend yield of 5 per cent.

The flotation coincides with an announcement by F & H that it has been awarded a £2m contract for the *installation of* control systems in London Heathrow airport's Terminal 3 *baggage handling facility.* It has already supplied a similar system for Terminal 4.

● comment

F & H's prospectus is properly frank about the reasons for this *flotation: had it not been for* the need to finance the buy-out, the company would presumably have been quite happy to carry on its business in private like most of its competitors. Now exposed to the full glare of an offer for sale, some points of concern emerge: the sales effort and management controls do not appear to have been strong in the past, the extent of the *dependence on General Motors* is discomforting, and the warning over the sustainability of profits growth reinforces worries about the flow of big contracts. With profits of £2.2m in sight for the current year, however, the lowly prospective p/e ratio of 8.8 takes all these into account. The big question is whether it will overcome the worst criticism of all: that the company is just plain unexciting. The answer might well have been no were it not for one nagging doubt. The last thing Smith New Court Agency wants for its debut on the new issues scene is a flop, and it has powerful allies to ensure that it does not get one.

Unigroup expands to £0.56m for year

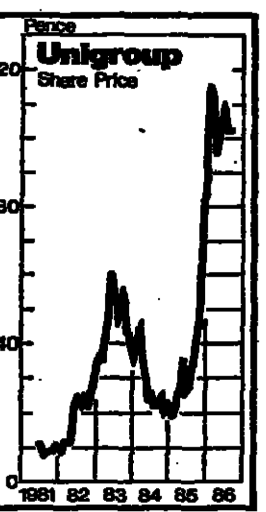
Unigroup, a holding company *involved mainly* in clothing manufacturing, announced pre-tax profits of £562,000 for the year *to April 30 1986 against* £21,000 for the 10-month period to April 1985. The directors were *confident that significant* progress would continue to be made in all trading divisions.

Turnover for the year amounted to £8.19m (£2.16m).

They have proposed a single final dividend of 1.1p (0.2p for 10 months) to be paid out of significantly higher earnings of 7.12p (0.24p) per 15p share.

Following the group expansion, and move to head offices at Witham, Essex, Mr Ivor Goodman has been appointed chairman, and Mr Maurice Miller, the former chairman, will continue as a non-executive director.

After tax, up from £5,000 to £132,000, and minorities unchanged at £2,000, attributable profits came out at £450,000 (£14,000). There was an extra-ordinary debit of £286,000 (£112,000) relating mainly to the closure of the aerosol division.



Black Arrow up 23% to £1.62m

Black Arrow Group produced substantially higher results in the year ended March 31 1986. *Profits* were ahead 23 per cent, earnings pe rshare 31 per cent, and dividends 19 per cent.

Turnover rose 37 per cent, from £9.16m to £12.53m, and the pre-tax profit moved up *from £1.32m to £1.62m.* Earnings were 15.41p (11.79p) and the final dividend is 3.25p to *make a net total of 5p (4.2p).*

During the year the electrical wholesaling operation was dis*continued, and the company was* now concentrating efforts in office furniture distribution, office contracting and leasing.

Leasing and instalment finance accounted for £1.57m (£1.29m) of turnover, office distribution and partitioning for £10m (£8.92m), electrical appliance distribution and other activities *for £959,000 (£944,000).*

Tax charge was £608,000 (£540,000), and *goodwill written* off was £881,000, relating to acquisitions made shortly before the year-end.

Results of the subsidiary Associated Furniture Holdings, *control of which was purchased* in January, were also disclosed. They showed turnover from *the manufacture* and sale of office furniture and equipment came to £1.42m (£183,000) and *the loss before tax to £367,000* (£106,000).

There were exceptional charges of £311,000 which brought the retained loss up to £675,000. In the charges was £205,000 relating to the purchase of rights to manufacture and sell a range of furniture.

This item will carry a qualification in the *auditors report,* as will the going concern concept being dependent upon the *continuing support* of the holding company.

Sommerville well ahead despite second half fall

William Sommerville & Son, Midlothian-based paper maker, achieved record turnover and profits in the year ended May 31 1986. With second-half pre-tax profits amounting to £204,000 against £252,000, the full year result came out at £170,300 ahead at £528,922.

Mr Gordon Wallace, managing director, *said it was the* first time in many years the company had managed to put together two good half years, although the second half was not as profitable as the first because of much increased depreciation due to high capital expenditure.

The directors have proposed an increased 8p (6.45p) final, to bring the total for the year to 9p (7p). Earnings are shown well ahead at 47.02p (33.28p).

Looking ahead, Mr Wallace said it would not be easy to repeat the success of the year under review, where it could be said that things had almost all gone the company's way. However, he hoped that the profits had been invested wisely, and the directors saw the coming year as one of consolidating Sommerville's markets, production processes and financial resources.

While its market seemed set fair at present, he warned that the paper trade was notoriously cyclical, and it was by no means impossible that in six months time they would be wondering from where the next order was coming.

In common with the rest of the fine printing and writing industry in the UK, demand for Sommerville's products had been strong over the year. Turnover improved by 19 per cent to £7.87m (£6.59m).

The company was able to maintain margins despite pulp costs increasing in the second half.

Tax for the year rose from £143,132 to £225,448.

PENDING DIVIDENDS

Dates when some of the more important company dividend statements may be expected in the next few weeks are given in the following table. The dates shown are those of last year's announcements except where the forthcoming board meetings (indicated thus*) have been officially notified. Dividends to be declared will not necessarily be at the amounts in the column headed "Announcement last year."

	Date	Announcement last year		Date	Announcement last year
AMEC	Aug 28	Interim 4.0	Ocean Transport	July 31	Interim 2.75
Ault and Wiborg	Aug 23	Interim due	*Pentland Industs.	Aug 28	Interim 0.34
BCI	Aug 29	Interim 6.0	Queens Moat Houses	Aug 22	Interim 0.385
*BP	Aug 25	Interim 12.0	*Rentokil	Aug 18	Interim 0.89
Babcock Intl.	Aug 28	Interim 4.0	*Royal Insce	Aug 14	Interim 8.2
*Barclays Bank	Aug 7	Interim 8.4	STC	Aug 8	Interim nil
British Aerospace	Aug 30	Interim 5.8	Securicor	Aug 7	Interim 0.46
*Commercial Union	Aug 13	Interim 4.85	*Sealink Transport	Aug 7	Interim 12.5
De Beers	Aug 20	Interim 15c	Slough Estates	Aug 28	Interim 2.2
*Dee Corpn	July 29	Final 4.0	Smith and Nephew	Aug 6	Interim 1.4
*GKN	Aug 6	Interim 4.5	Smith (W. H.)	Aug 21	Final 0.845
General Accident	Aug 14	Interim 8.0	Standard Chartered	Aug 20	Interim 16.5
*Glynwed	Aug 5	Interim 3.75	*TI	Aug 7	Interim 3.0
Gold Fields SA	Aug 20	Final 80c	Taylor Woodrow	Aug 27	Interim 4.9
Hawley	Aug 21	Interim 1.75c	*Tomkins (F. H.)	July 28	Final 1.625
Hickson Intl.	Aug 19	Interim 5.0	Transport Dev.	Aug 12	Interim 1.7
*HK Shanghai Bank	Aug 25	Interim 30.15	Tricentrol	Aug 14	Interim 4.0
Horizon Travel	Aug 22	Interim 0.58	Unigate	Aug 14	Interim 4.0
Ladbroke	Aug 28	Interim 5.0	Weir	Aug 28	Interim 0.75
*Lister	June 30	Final 0.25	Williams Holdings	Aug 28	Interim 5.0
McAlpine (A.)	Aug 20	Interim 3.6	*Yorks Chem	Aug 6	Final due
Marley	Aug 27	Interim 1.4			
*Marcantile House	July 30	Final 9			
*Midland Bank	July 31	Interim 11			
*NatWest Bank	July 28	Interim 10			

* Board meeting intimated. † Rights issue since made. ‡ Tax free. § Scrip issue since made. ¶ Forecast.

Berisfords sees £900,000 for 1986/87

The directors of **Berisfords Group** have confirmed that, after the setback of the year ended March 31 1986, the current term would produce a pre-tax profit of some £900,000, and the dividend would be increased to 6.5p net.

In their successful fight against the bid from Allied Textile Companies the directors forecast profits of not less than £125,000 compared with £729,000 the year before. In the event the profit came to £133,000, earnings were 2.4p (9.9p) and the dividend is the forecast unchanged 5.25p, the final being maintained at 3.73p.

The group manufactures *ribbons, labels, trimmings,* embroidery and lampshades.

FT Share Information

The following securities have been added to the Share Information Services:

Bredero Properties (Section: Property)

British Island Airways (Industrials)

Denistron Intl (Electricals)

Omnitech for market this week at 33p per share

BY RICHARD TOMKINS

OMNITECH, the start-up venture which claims to have a revolutionary packaging machine, will be priced at 33p a share when it comes to the USM through a placing of 3m shares this week, giving it a market capitalisation of £5.9m.

The packaging machine, called Omnitrac, has been researched and developed by Omnitech's managing director, Mr Michael Barker. It is aimed mainly at the food industry and the company believes it offers significant efficiency benefits over conventional models.

Omnitrac has now been developed to prototype stage and is about to be tested in a working environment. The flotation of 17 per cent of the equity will raise £880,000 net which will be used to fund the machine's marketing and promotion.

The issue will also enable Omnitech's chief backer, Gresham House Investment Trust Management, to write up the value of its £500,000 investment in Omnitech. The combined value of the stakes held by Gresham House and its Welsh Industrial Investment Trust will be worth nearly £3m at the placing price.

Joint sponsors for the placing are licenced dealers Security Exchange, a Gresham House subsidiary, and brokers Greig Middleton.

The prospectus says Omnitech has reached agreements under which distributors have undertaken to find orders for at least 20 machines in the first year, half of them in the UK and half in the Americas.

However, it also warns that all start-up ventures involve high risk and there can be no guarantee that sales will be forthcoming.

Ailsa Inv. ahead

A successful year at Ailsa Investment Trust saw earnings double to 5.17p and the net asset value surge ahead to 142.9p, from 115.6p, by May 31 1986. On July 18, the value was up to 143.5p.

The directors raised the dividend from 1.8p to 2.5p, with a final of 1.5p.

Plessey not buying Ferranti

Plessey yesterday denied press rumours that it was buying shares in fellow electronics company Ferranti.

"There is no truth in the speculation that we are attempting to buy shares in Ferranti or engage in poison pill activities," the company said in an official statement.

There had been speculation that Plessey might be preparing a bid for Ferranti as a "poison pill" tactic designed to protect it from a renewed bid by GEC.

The Monopolies Commission recently handed the Government its report on the £1.2bn GEC bid for Plessey, which was referred for investigation last January. However, the Department of Trade's decision on the bid may not be known for several weeks.

FINANCIAL TIMES STOCK INDICES

	July 25	July 24	July 23	July 22	July 21	July 18	1986 High	1986 Low	Since Compilation High	Since Compilation Low
Government Secs.	89.19	89.19	88.86	88.74	88.55	88.88	94.51	80.39	127.4	49.18
Fixed Interest	96.03	95.83	95.66	95.55	95.63	95.92	97.66	86.55	150.4	50.53
Ordinary	1269.7	1264.2	1266.8	1274.7	1276.3	1295.4	1426.9	1094.3	1425.9	49.4
Gold Mines	196.7	195.9	197.2	189.7	188.4	185.7	357.0	185.7	734.7	43.5
FT-Act All Share	767.00	769.99	779.84	774.43	773.58	797.84	832.39	664.42	832.39	61.92
FT-SE 100	1545.8	1547.7	1572.3	1559.2	1560.2	1584.4	1717.6	1370.1	1717.6	986.9

BOARD MEETINGS

The following companies have notified dates of board meetings to the Stock Exchange. Such meetings are usually held for the purpose of considering dividends. Official indications are not available as to whether the dividends are interims or finals and the sub-divisions shown below are based mainly on last year's timetable.

TODAY

Interims:—AMS Industries, Continental Assets Trust, Thomas Jourdan, Reuters.

Finals:—Hillards, Merrydown Wine, Murray Smaller Markets Trust, Norton Opax, Parkfield, TR Trustees, F. H. Tomkins, A. J. Worthington.

FUTURE DATES

Interims:—
Calid Health Research Inv Tst ... July 29
Macarthys Pharmaceuticals ... July 31
Renold ... Nov 7
Unilever ... Aug 12
Webber Electro Components ... July 29

Finals:—
Clark (Matthew) ... Aug 12
Delepak Foods ... Aug 6
GT Japan Investment Trust ... Sep 15

LONDON RECENT ISSUES

EQUITIES

Issue Price	Amount Paid up	Latest Renunc. Date	1986 High	1986 Low	Stock	Closing Price	+ or −	Net. Div.	Times Cov'd	Gross Yield	P.E. Ratio
§125	F.P.	24/7	167	136	‡Accord Publications 5p	166	−1	R(d)3.1	2.6	2.6	21.0
‖‖	F.P.	15/8	127	108	‡Airsprung Group 10p	112	+4	5.4	2.8	6.8	7.4
§115	F.P.	22/8	141	128	‡Anglia Sec Homes 10p	130	...	R1.63	5.0	1.8	16.0
115	F.P.	11/7	190	155	Arlington Sec. 10p	173	+3	b1.7	4.3	1.4	23.7
§67	F.P.	8/8	71	68	‡BBB Design Grp 5p	70	......	L1.0	4.2	2.0	16.8
§145	F.P.	15/8	158	145	‡Beaverco 5p	147	−5	u5.0	2.4	4.8	11.7
‖‖	F.P.	—	53	41	Bertrams Inv. Tst	44	.....	—	—	—	—
§37½	F.P.	25/7	43½	38	‡Bipel 5p	42	.....	R1.225	3.1	4.1	10.5
125	F.P.	8/8	147	128	‡Borland Intl. Inc	142	+1	u02c	1.4	1.0	19.9
§63	F.P.	6/8	69	61½	‡Camotech 10p	66	......	R2.0	2.4	4.3	13.5
§110	F.P.	18/7	115	85	‡C'bell & Armstrong 5p	95	−5	u3.91	1.9	5.8	12.1
§125	F.P.	7/8	135	129	‡Chelsea Man 5p	129	......	L2.2	2.8	2.4	21.2
‖‖	F.P.	18/7	110	85	Clarkson (Horace)	100	.....	L4.75	1.5	6.7	13.7
¶¶	F.P.	—	100	58	Clayform Warrants	58	−2	—	—	—	—
§84	F.P.	1/8	91	84	‡Coated Electrodes 5p	88	.....	u3.9	1.6	6.2	13.7
237	100	—	110	90	Dee Corp	92	−1	5.8	1.9	3.6	17.8
§70	F.P.	22/8	74	71	‡Fletcher Den'ys S. 5p	73	−1	L2.5	1.9	4.8	15.5
210	F.P.	—	200	191	G. T. Management 1p	195	.....	R3.0	3.4	2.2	16.4
150	F.P.	25/7	156	150	Guthrie Corp	156	+4	u5.3	2.2	4.8	10.0
150	F.P.	—	161	157	Harrison Inds. 10p	157	....	Sg5.0	2.7	4.5	11.8
§92	F.P.	28/8	95	87	‡Hille Ergonom 10p	95	+7	L2.0	3.1	3.0	13.1
§85	F.P.	24/7	117	90	‡Hodgson Hldgs 5p	112	+2	R2.13	2.3	2.7	20.4
§20	F.P.	—	25	21½	‡Hughes Food 5p	23	−1	Ro.5	2.8	3.1	16.6
—	F.P.	—	£36	£36	JF Pacific Warrant S.A.	£36	.....	—	—	—	—
R30	Nil	—	325	180	Joel (H.J.) Ltd Units	180	. .	—	—	—	—
§154	F.P.	13/8	159	158	Kleinwort Dev. Fnd	158	.	—	—	—	—
100	F.P.	15/8	90	85	‡M6 Cash & Carry	88	......	u3.55	2.1	5.7	9.8
¶500	F.P.	29/8	516	440	Morgan Grenfell £1	440	.....	L8.5	—	2.7	—
§120	F.P.	—	120	112	‡Per. Computers 5p	112	.....	R3.0	3.3	3.8	11.4
§113	F.P.	29/8	114	113	St. David's Inv. Tst. Inc.	113	......	H68	—	8.5	—
§75	F.P.	29/8	77	75½	Do Cap.	75½	.....	—	—	—	—
§72	F.P.	15/8	160	99	‡Shield Group 5p	130	−5	L2.0	3.1	2.2	19.0
§165	F.P.	1/8	184	162	‡Smallbone 10p	162	......	u5.0	2.1	4.3	15.1
—	F.P.	—	55	43	Smith Newcourt War'ts	50	......	—	—	—	—
§40	F.P.	31/7	42	35	‡Soundtracs 5p	40	......	61.2	2.8	4.2	11.9
§98	F.P.	6/8	106	98	‡Space Planning 10p	100	−2	R1.8	3.4	2.5	16.3
§110	F.P.	28/8	125	119	Stanley Leisure	124	......	u3.25	2.8	3.7	13.7
130	F.P.	—	142	135	‡TV-am 10p	140	+1	R5.75	2.6	5.8	9.4
§95	F.P.	25/7	114	104	‡Task Force 5p	110	.....	R1.78	3.8	2.3	16.3
112	F.P.	8/8	130	116	Tenby 50p	128	......	u4.0	2.6	4.4	9.9
190	F.P.	1/8	242	219	Thames TV	224	−1	49.5	1.9	6.0	12.6
120	F.P.	6/8	130	100	Tibbet & Britten 5p	125	......	R3.5	2.6	3.9	14.0
§63	F.P.	22/8	68	66	Unilock 20p	66	......	1.98	2.7	4.2	12.5
††	F.P.	—	100	95	Welsh Ind. Inv. Tst. 5p	100	.....	—	—	—	—
106	F.P.	22/8	112	110	Windsmoor 5p	110	......	u3.25	2.3	4.2	14.8

FIXED INTEREST STOCKS

Issue Price £	Amount Paid up	Latest Renunc Date	1986 High	1986 Low	Stock	Closing Price £	+ or −
§97.947	£25	17/9	27¼	25⅞	Bankers Inv. Tst. 10½% Deb. 2016	25⅞	......
§99.256	£30	29/8	30¼	26⅞	Brit. Alcan Aluminium 10⅞% Deb. 2011	27¼	......
§94.203	£25	31/10	25¼	22¾	Brixton Est. 9.5% 1st Mort Deb 2026	23¼	+⅛
§100p	F.P.	15/8	107p	105p	Business Mortgages Tst. 8.6%Cum Prf.	107p	......
109.89	£40	29/8	40	37¼	Estates & Gen. 11¼% 1st Deb. 2018	37¼	......
§94.45	£30	31/10	32¼	28¾	European Inv. Bank 9%Ln 2001	29	+⅜
‖	Nil	29/8	5ppm	2ppm	‡Fergebrook 12% Cnv Uns Ln 1992-97	2ppm	. . .
96.114	£25	24/10	27⅞	25	Globe Inv. 10% Deb. 2016	25⅛	−¼
§99.054	£40	12/9	41⅝	39⅞	Govett Strat.Inv.Tst.10⅞% Deb. 2016	39½	......
97.963	£25	24/10	25¾	19¼	Gt. Portland 9½% 1st. Mort. Deb. 2016	19⅝	+⅛
—	—	—	29	28¼	JF Pacific Warrant S. A. Pref.	29	+¼
105.523	£25	21/8	26	18⅛	Land Securities 10% 1st. Mort. Deb.25	18⅞	+¼
‖	F.P.	14/8	101¼p	97p	Leigh Int. 6% Cnv. Cum. Red. Prf.	100p	......
§99.793	£25	24/9	24⅝	21	Lon. Shop Prop. 10% 1st. Mort. Deb. 2026	21¼	+⅛
¶¶	F.P.	—	101	96	Mercury Intl. 7⅞% Cum Pref.	97	......
‖‖	F.P.	—	136p	136p	Morgan Grenfell 11¼% Cum Prf.	136p	......
—	F.P.	—	100	99	Nationwide 9{1/32}% 6/7/87	99⅝	−1/16
—	F.P.	—	100¼	99⅞	Do. 10¼% 27/7/87	99{13/16}	......
§99.937	£25	24/10	25⅛	23⅞	Do 3⅞% IL Ln. 2021	24	......
¶100	£10	2/9	9	8	Newcastle & Gate. Wtr. 7% Red. Prf. 94/6	8	......
95.512	F.P.	8/8	98½	94¼	Scot.Mort.6%—12%Ste'dlnt.Deb.2026	96½	+⅛
§105	£50	10/10	46	44	Smith New Court 12pc Uns. Ln. 2001‡‡	44	......
§99.073	£25	8/8	25¼	22⅞	Tops Est. 10¼% 1st. Mort. Deb. 2011/16	22⅞	......
—	F.P.	—	110	107	Wight C'ns Cv. Cm. Rd. Prf. 1999 10p	110	......
100	£50	12/9	50¼	46⅛	Witan Inv. 8½% Deb 2016	46⅛	+⅛

"RIGHTS" OFFERS

Issue Price	Amount Paid up	Latest Renunc Date	1986 High	1986 Low	Stock	Closing Price p	+ or −
49	Nil	29/8	36pm	17pm	Abaco Invs. 5p	17pm	−4
40	F.P.	4/8	51	42	Anglo African Fin. 7½p	42	......
470	F.P.	4/8	670	570	Antofagasta Hldgs. £1	625	......
55	F.P.	—	55½	45	Bertrams Inv. Tst.	45	......
250	F.P.	12/9	280	245	Boase Massimi Pollitt 12½p	245	−2
170	Nil	2/9	23pm	16pm	Coloroll 10p.	20pm	......
465	F.P.	29/8	565	520	Costain Group	520	−6
145	Nil	20/8	40pm	30pm	Dataserv. Inc. 5c.	30pm	−2
130	F.P.	14/8	146	132	Erskine House	132	−8
165	Nil	28/8	20pm	5pm	Expamet Intl.	5pm	−4
148	F.P.	20/8	182	168	Ibstock Johnsen	168	......
215	F.P.	15/8	278	230	Intl. Signal & Control 10c	230	......
200	Nil	29/8	20pm	10pm	‡Meadow Farm Prod. 10p	20pm	......
120	Nil	—	23pm	17pm	Medminster 10p	23pm	......
£14	Nil	12/9	230pm	220pm	Priest Marians £1	230pm	......
44	F.P.	28/8	6pm	2½pm	‡Sheraton Secs. 10p	2½pm	−1½
25	F.P.	11/8	29	24	Sovereign Oil & Gas	24	−1
125	Nil	—	11pm	11pm	‡Tod 5p	11pm	......
90	Nil	17/9	2½pm	1pm	Top Value Inds. 10p	2pm	+1
38	Nil	28/8	2½pm	¼pm	‡Yelverton Invs. 5p	¼pm	......
41	Nil	29/8	35pm	22pm	‡York Mount	25pm	+1

Renunciation date usually last day for dealing free of stamp duty. *a* Annualised dividend. *b* Figures based on prospectus estimates. *g* Assumed dividend and yield. *h* Assumed dividend and yield after scrip issue. F Forecast dividend cover on earnings updated by latest interim statement. H Dividend and Yield based on prospectus or other offical estimates for 1987. L Estimated annualised dividend, cover and p/e based on latest annual earnings. R Forecast annualised dividend, cover and p/e ratio based on prospectus or other official estimates. *t* Indicated dividends; cover relates to previous dividend; p/e ratio based on latest annual earnings. *u* Forecast, or estimated annualised dividend rate, cover based on previous year's earnings. ¶ Issued by tender. ‖ Offered holders of ordinary shares as a "rights." ‖‖ Introduction. ** Issued by way of capitalisation. § Placing price. §§ Reintroduced. ¶¶ Issued in connection with reorganisation merger or takeover. Allotment price. ‡ Unlisted securities market. †† Official London listing. ‡‡ Including warrants entitlement.

F.T. CROSSWORD PUZZLE No. 6084

HIGHLANDER

ACROSS

1 Captain's final instruction for Titanic's orchestra? (7, 4)
7 Object to a stretch of arterial motorway (3)
9 Feel dispirited and inferior (5)
10 Bad-tempered capital according to oral evidence (9)
11 Scenery is laid out and goes into different places (9)
12 Craft carrying oxygen to a blood vessel (5)
13 An order from Scotland for plant—the list is subject to change (7)
15 Left a long time back—Christmas in fact (4)
18 A star can take on this work (4)
20 Joined together by ancient fortunes possibly (7)
23 Silver-blue and shining (5)
24 Swear by sheep and lamb stew (9)
26 Soccer authorities organised benefit dance (9)
27 Stupid fellow takes the same short with nothing in it (5)
28 How to deal with the fare inside a taxi (3)
29 Where to find any number of coloured sheets? (6, 5)

DOWN

1 Lame, but off on a walk (8)
2 Land mostly surrounded by Greek ocean (8)
3 Fells—an upland tract of pasture land (5)
4 Silly fellow from Shell? (7)
5 Influential person no longer came (3-4)
6 Concealed listener hears vessel commissioned for raiding (9)
7 One group of directors is on the train (6)
8 Can take time for a holiday (3, 3)
14 Leaders in popular music have to do more than score (3, 6)
16 Provision of food might come to tragic end with daughter gone (8)
17 Mineral yielding arsenic and top-quality osmium (8)
19 Layer under the surface where vessels find fuel (7)
20 Remember to replace bottle—it contains a type of medicine (7)
21 Amaze with diverting device (6)
22 First of chateaux later involved in wine-making (6)
25 Demure, quietly making dress up (5)

The solution to last Saturday's prize puzzle will be published with names of winners next Saturday.

FT UNIT TRUST INFORMATION SERVICE

AUTHORISED UNIT TRUSTS

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AUTHORISED UNIT TRUSTS & INSURANCES

Wardley Unit Trust Managers Ltd (a)
Wardley House, 7 Devonshire Sq, EC2 01-929 1532

American Tst.	63.3	68.1xd	....	1.8
Far East & Gn. Tst.	104.1	110.8	-0.1	0.9
Intl. Growth Tst.	68.1	72.5xd	....	0.7
Income Tst.	82.8	89.1	-0.4	5.6
Japan Growth Tst.	126.0	135.5	-1.2	0.2
Small Cos. Tst.	110.1	118.4	-1.3	2.0
Technology Tst.	33.0	35.4	-0.1	0.2
Australia Trust	34.9	37.5	-0.5	2.1
UK Trust	126.7	134.8	-1.0	2.7
European Growth Tst.	50.2	53.4xd	+0.3	1.2
Hong Kong Tst.	22.7	24.3	+0.3	1.6

Waverley Asset Management Ltd (a) (c) (g)
13 Charlotte Sq, Edinburgh 031-225 1551

Australasian Gold	15.0	16.0	-0.2	0.15
Pacific Basin	13.0	13.8	-0.1	0.2
Canadian Balncd Grwth.	56.3	60.2	+0.2	0.98
Glomac Man.	101.0	108.2	-0.1	7.3

WestAven Unit Trust Managers Ltd(a)(c)
9 Portland Square, Bristol BS2 8SS 0272 428431

British Smllr Co's (z)	56.1	57.7	-0.6	1.50
British Growth (z)	66.1	68.0	-0.2	2.00
British Income (z)	64.4	66.1	-0.2	5.00
British Extra Yield(z)	50.3	51.5xd	-0.1	7.00

Whittingdale Unit Trust Managers
2 Honey Lane, London EC2V 8BT 01-606 9085/6

Short Dat Gilt Fd	67.5	68.6	+0.1	0.00
U.S. Govmnt Bond F.	52.505	0.508	....	—

Windsor Trust Mngrs Ltd
83 Kingsway, London, WC2B 6SD 01-405 8331

Cowrtbl & Equity Tst	47.6	50.3	-0.2	7.82
Growth Trust	50.2	53.0	-0.7	2.29
Income Trust	52.5	55.9	-0.2	5.24

Wright Seligman Fund Managers Ltd
11 Blomfield St, London EC2M 7AY 01-588 0592

Growth Fund	67.6	71.1xd	....	2.95

Weekly dealing day Tuesday

The Yorkshire General Trust
Woodsome Pk, Fenay Bdge, Huddersfield 0484 602250

Y.G.T.	120.6	128.4xd	-0.2	3.54

INSURANCES

Cannon Assurance Ltd—Continued

Index	110.7	117.1	....	—
Far East	178.7	189.1	+2.2	—
Global	95.3	100.8	+0.3	—
European	97.6	103.3	....	—
Japan	110.5	116.9	+0.6	—
2nd Series Pension Accumulation				
Equity	477.5	506.3	+5.1	—
High Income	315.3	333.7	-2.6	—
Property	281.1	297.5	....	—
Managed	335.3	354.8	-0.8	—
Deposit	250.7	265.3	....	—
Gilt	253.4	268.1	+0.8	—
American	382.7	405.0	-0.4	—
International Money	270.8	286.6	+0.3	—
Index	121.0	128.0	....	—
Far East	194.3	205.5	+3.6	—
Global	95.5	101.1	+0.5	—
European	98.4	104.1	....	—
Japan	114.7	121.4	+0.7	—
Other Funds				
Equity Units		64.99	-0.60	—
Property Units		21.33	....	—
Equity Bond/Exec	40.62	42.98	-0.40	—
Property Bond/Exec	28.77	30.44	....	—
Balanced Bond/Exec	33.17	35.10	-0.06	—
L&E SIF 1	109.0	115.0	....	—
L&E SIF 2	71.0	75.5	....	—

City of Edinburgh Life Assurance
46 Charlotte Sq, Edinburgh EH2 4HQ 031-225 1655

Ivory & Sime Bond	100.0	106.0	-4.0	—
Risk & Reward Bond	117.0	124.0	....	—
Murray Johnstone Fd	116.0	123.0	....	—
Money Market Fd	100.0	106.0	....	—
Ivory & Sime Pens Fd	97.0	103.0	....	—
Risk & Reward Pens Fd	99.0	105.0	-1.0	—
Murray J'stone Pens Fd	114.0	120.0	....	—
Money Market Pens Fd	100.0	106.0	....	—

City of Westminster Assurance
Sentry House, 500 Avebury Boulevard, Cent Milton Keynes MK9 2LA Tel: 0908 606101/660888

Current Series				
Property Fund	113.9	119.9	....	—
Money Fund	219.9	231.5	+0.2	—
Managed Fund	404.0	425.3	-1.7	—
Equity Fund	250.1	263.3	-1.4	—
Fixed Interest Fund	149.0	156.9	-0.9	—
Far East Fund	205.3	216.2	+2.0	—
North American Fund	182.4	192.0	-2.8	—
Natural Resources Fund	125.3	131.9	-0.7	—
S.U.R. Flag Fund	117.0	123.2	-0.6	—
Pension Managed Fund	375.6	395.4	-0.8	—
Pension Equity Fund	238.7	251.3	-0.6	—

INSURANCE, OVERSEAS & MONEY FUNDS

World Fund S.A.
2 Boulevard Royal, Luxembourg

World Fund NAV	$18.11	+0.03	—

World Wide Growth Management◊
10a, Boulevard Royal, Luxembourg

Worldwide Gth Fd	$16.04	+0.04	—

Inv. Adv.: M. & G. Inv. Mngt., Ltd, London

Yamaichi Dynamic Mngt Co SA
10A Boulevard Royal, Luxembourg

Advanced Tech	$18.76	+0.11	—
Dynamic Gwth Fd	$20.04	+0.03	—

Zero Bond Fund Limited
PO Box 208, St Peter Port, Guernsey 0481 26268

Zero Bond Fund	$21.91	12.61	—	—

Money Market Trust Funds

	Gross	Net	Gr Equiv CAR	Int Cr
The Charities Deposit Fund 2 Fore Street, London EC2Y 5AQ 01-588 1815				
Deposit	9.50		...	3-Mth
The Money Market Trust 63 Qn Victoria St, EC4N 4ST. 01-236 0952				
Call Fund	9.48	7.09	10.33	6-mth
7-day Fnd	9.48	7.09	10.33	6-mth
Oppenheimer Money Management Ltd 66 Cannon St, EC4N 6AE. 01-236 1425				
Call Fnd	9.43	7.05	10.10	6-Mth
7-day Fund	9.61	7.18	10.30	6-Mth
Dollar	5.25	—	—	6-Mth

Money Market Bank Accounts

	Gross	Net	Gr Equiv CAR	Int Cr
Adam & Co. plc 22 Charlotte Sq, Edinburgh EH2 4DF 031-225 8484				
Full Service Cur Acc	9.25	6.80	5.83	Qtr
Aitken Hume 30 City Road, EC1Y 2AY. 01-638 6070				
Treasury Acc	9.25	6.91	9.99	Qtr
Mth. Int. Chq.	9.25	6.91	10.04	Mth
Allied Arab Bank Ltd 97-101 Cannon St, London, EC4N 5AD 01-283 9111				
High Int. Cheque Acc	10.125	7.57	11.04	Mth
Bank of Scotland 38 Threadneedle St, EC2P 2EH. 01-628 8060				
Money Mkt Cheque Acc	9.45	7.08	10.28	Mth
Barclays Prime Account PO Box 125, Northampton 0604 252891				
High Int. Cheque	9.50	7.10	10.3338	Qtr

J. Henry Schroder Wagg & Co Ltd
120 Cheapside, London EC2 01-382 6000

Schroder Fin. Mgmt. Intl. Limited
Box 273 St Peter Port, Guernsey 0481 28750

Warburg Inv Mngt Jersey—Cont
Mercury Money Market Trust Ltd

Warburg Inv Mngmt (Isle of Man) Ltd
1 Thomas Street, Douglas, Isle of Man 0624 23956

Wardley Fund Managers (Jersey) Ltd

Wardley Investment Services Ltd
6th Floor, Hutchison House, Hong Kong

Brown Shipley Fund Mgmt (CI) Ltd
PO Box 583, St Helier, Jersey 0534 74777

Butterfield Management Co Ltd
PO Box 195, Hamilton, Bermuda

CAL Investments (IoM) Ltd
16 St Georges Street, Douglas, IoM 0624 20231

Foreign & Colonial Management Ltd
1 Laurence Pountney Hill, London EC4 01-623 4680

Hill Samuel Investment Mgmt Intl SA
Jersey, PO Box 63

NEL Britannia Int Ass Ltd
Acorn House, Athol St, Douglas, IoM 0624 24924

NM Income & Gwth Fd
2 Boulevard Royal, Luxembourg

Nat. Westminster Jersey Fd. Mgrs. Ltd
23/25 Broad St, St Helier, Jersey 0534 70041

Skandia Life Assurance Co Ltd—Cont
Skandia Henderson Funds

UK Provident
UK House, Castle St, Salisbury SP1 3SH 0722 336242

Vanbrugh Life Assurance
Portland Hse, Stag Place, Ldn. SW1E 5BH 01-922 8247

MANAGEMENT SERVICES

OFFSHORE AND OVERSEAS

TRADITIONAL OPTIONS
3-month call rates

NOTES

LONDON SHARE SERVICE

BRITISH FUNDS

Interest Due	Stock	Price £	Last xd	Yield Int.	Yield Red.
	"Shorts" (Lives up to Five Years)				
29 Apr 29 Oct	Exch. 14pc 1986	[illegible]	[illegible]	13.97	9.79
21 May 21 Nov	Exch. 2½pc 1986	[illegible]	[illegible]	2.59	6.86
22 Jul 22 Jan	Exch. 13½pc 1987	101[illegible]	[illegible]	13.05	9.76
10 Aug 10 Feb	Treas 10½pcCv '87	101[illegible]	[illegible]	10.32	9.72
24 Aug 24 Feb	Exch 2½pc 1987	97[illegible]	19.7	2.55	6.78
6 Oct 6 Apr	Exch. 10½pc 1987	100[illegible]	3.3	10.45	9.74
1 Nov 1 May	Funding 6½pc '85-87‡‡	98[illegible]	25.3	6.61	8.79
12 Dec 12 Jne	Treas. 10pc 1987	100[illegible]	5.5	9.97	9.72
14 Jan 14 Jly	Treas 3pc 1987	96[illegible]	30.6	3.11	7.03
3 May 3 Nov	Treas. 12pc 1987	102[illegible]	28.3	11.71	9.81
26 Jul 26 Jan	Treas 7¾pc 1985-88‡‡	98[illegible]	19.6	7.90	9.14
10 Nov 10 May	Exch 10½pc '88	101[illegible]	3.4	10.39	9.77
14 Dec 14 Jne	Treas 9½pc Cv '88	100	8.5	9.79	9.73
1 Jan 1 Jul	Transport 3pc '78-88	93[illegible]	27.5	3.21	6.87
25 Apr 25 Oct	Treas. 9½pc '88	99[illegible]	19.3	9.54	9.59
22 Aug 22 Feb	Treas 11½pc 1989	104[illegible]	16.7	11.05	9.67
18 Oct 18 Apr	Treas 9½pc Cnv. '89	99[illegible]	12.3	9.54	9.60
15 Nov 15 May	Treas 3pc 1989	89[illegible]	8.4	3.34	7.04
14 Dec 14 Jun	Treas 10½pc 1989	102	9.5	10.30	9.67
1 Feb 1 Aug	Exch. 10pc 1989	100[illegible]	25.6	9.93	9.72
29 Mar 29 Sep	Exch 11pc 1989	103[illegible]	20.2	10.63	9.63
15 Apr 15 Oct	Treas 5pc 1986-89	91[illegible]	10.3	5.47	8.02
15 May 15 Nov	Exch 10½pcCv '89	105[illegible]	8.4	9.71	8.26
15 Jul 15 Jan	Treas 13pc 1990‡‡	110[illegible]	9.6	11.79	9.45
12 Aug 12 Feb	Exch 11pc 1990‡‡	104[illegible]	7.7	10.54	9.54
22 Sep 22 Mar	Exch. 12½pc 1990	108[illegible]	13.2	11.49	9.57
8 Nov 8 May	Treas. 3pc 1990	86[illegible]	1.4	3.45	7.13
15 Dec 15 Jun	Treas 8¼pc 1987-90‡‡	97[illegible]	9.5	8.47	8.97
25 Apr 25 Oct	Treas. 10pcCv 1990	101[illegible]	19.3	9.83	9.49
22 May 22 Nov	Exch 2½pc 1990	83[illegible]	15.4	2.98	6.92
10 Jan 10 July	Treas 11¾pc 1991	107[illegible]	13.6	10.88	9.50
5 Oct 5 Apr	Funding 5¾pc '87-91‡‡	91[illegible]	3.3	6.27	7.88
13 Nov 13 May	Treas. 3pc 1991●	83[illegible]	—	3.58	7.05
	Five to Fifteen Years				
25 Apr 25 Oct	Exch. 11pc 1991	106	19.3	10.38	9.50
22 Jly 22 Jan	Treas 12¾pc 1992‡‡	113[illegible]	16.6	11.26	9.58
21 Aug 21 Feb	Treas 10pc 1992	102[illegible]	15.7	9.78	9.47
7 Nov 7 May	Treas 10½pc Cv 1992‡‡	104[illegible]	1.4	10.08	9.54
25 Feb 25 Aug	Exch. 12¼pc '92	111[illegible]	21.7	10.97	9.68
22 Mar 22 Sep	Exch 13½pc 1992	117[illegible]	13.2	11.53	9.71

AMERICANS—Cont.

Dividends Paid	Stock	Price £	Last xd	Div Gross	C'vr	Y'ld Gr's
Ap Jy Oc Ja	Chemical New York	38[illegible]	10.5	$2.60	—	5.8
Mar Jun S D	Chesebrough-Pond's $1	31	30.5	$2.00	—	4.4
Mar Jun S D	Chrysler $6¼	24	10.6	[illegible]	—	1.9
My Au N F	Citicorp $4	37[illegible]	21.3	$2.36	—	4.2
Fb My Ag Nv	CityFed Fin Corp	11[illegible]	30.12	40c	—	2.3
F My Au N	Colgate-P. $1	26[illegible]	22.4	$1.36	—	3.5
Mr Ju Se De	Colt Inds $1	62[illegible]	10.6	$2.50	—	2.7
Fe My Au Nv	Com. Freightways $0.625	19[illegible]	6.5	82c	—	2.8
Fe My Au Nv	Cont'l Illinois Corp $1	412p	—	—	—	—
Fe My Au Nv	Cont Illinois Hldgs $1	25p	3.84	—	—	—
—	♦Corporate Data Scnce.	50p	—	—	—	—
Jn Ap Jy Oc	Crown Zell. $5	24[illegible]	5.12	$1.00	—	2.8
—	Cullinet Sftwr $0.1	728p	—	—	—	—
—	Damson Oil 40c	42p	—	—	—	—
Mar Jun S D	Dana Corp $1	19[illegible]	22.5	$1.28	[illegible]	[illegible]
—	Data General	22[illegible]	—	—	[illegible]	[illegible]
—	♦Derma-Lock Medicl	13[illegible]	—	—	[illegible]	[illegible]
Mr Jn Sp Dc	Dun & Bradstreet $1	74[illegible]	17.2	$2.56	[illegible]	[illegible]
F My Au N	Eaton Corpn 50c	42[illegible]	30.4	$1.60	[illegible]	[illegible]
	For Exxon see Oil and Gas					
Mr Jn Sep Dec	FPL Group $0.01	23[illegible]	27.5	$2.04	[illegible]	[illegible]
—	Fairmont Fin.	11[illegible]		—	[illegible]	[illegible]
F May Au N	Fin Corpn. Amer. 50c	577p	25.6	—	[illegible]	[illegible]
Jan Apr Jly O	First Chicago $5	20[illegible]	3.6	$1.32	[illegible]	[illegible]
Mar Jun S D	Ford Motor $2	37[illegible]	29.4	$2.20	[illegible]	[illegible]
Mar Jun S D	GATX 62½c	21[illegible]	10.6	$1.20	[illegible]	[illegible]
April Oct	Gen. Elect. $1¼	49[illegible]	3.6	$2.32	[illegible]	[illegible]
—	♦General Host Corp $1	14[illegible]	—	22c	[illegible]	[illegible]
Mar Jun S D	Gillette $1	30[illegible]	28.4	$2.72	[illegible]	[illegible]
Fb My Aug Nv	Gt Am First Svgs Bk $1	14[illegible]	25.7	[illegible]	[illegible]	[illegible]
Fe My Au No	Gt. Western Fin. $1	29[illegible]	30.4	$1.20	[illegible]	[illegible]
Ja No Au My	Hasbro Inc $0.50	38[illegible]	18.8	18c	[illegible]	[illegible]
Mar Jun S D	Honeywell $1.50	65[illegible]	25.2	$2.00	[illegible]	[illegible]
No Au Ap Ja	Hospital Corp Am $1	25[illegible]	30.6	50c	[illegible]	[illegible]
Mr Jn Se Dc	Houston Inds Incl	23	13.5	$2.80	[illegible]	[illegible]
Mar Jun S D	IBM Corpn $1.25	89[illegible]	8.4	$4.40	[illegible]	[illegible]
Ap Jy Oc Ja	IC Industries	16[illegible]	10.6	72c	[illegible]	[illegible]
Ja Ap Jy Oc	ITT Corpn $1	35[illegible]	6.5	$1.00	[illegible]	[illegible]
—	♦Imatron Inc	261p	—	—	[illegible]	[illegible]
Mar Jun S D	Ingersoll-Rand $2	35[illegible]	16.5	$2.60	[illegible]	[illegible]
Fb Ap Ag Nv	Insilco $1	13[illegible]	4.7	$1.00	[illegible]	[illegible]

Over Fifteen Years

Undated

Index-Linked

INT. BANK AND O'SEAS GOVT STERLING ISSUES

CORPORATION LOANS

COMMONWEALTH & AFRICAN LOANS

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Building Societies

Public Board and Ind.

Financial

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AMERICANS

CANADIANS

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BEERS, WINES & SPIRITS

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DRAPERY & STORES—Cont.

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ENGINEERING

ENGINEERING—Continued

FOOD, GROCERIES, ETC

HOTELS AND CATERERS

INDUSTRIALS (Miscel.)

INDUSTRIALS—Continued

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INDUSTRIALS—Continued

Dividends Paid		Stock	Price	Last xd	Div Net	C'vr	Y'ld Gr's	P/E
Jan.	July	Morgan Crucible	257	28.4	8.5	1.7	4.7	16.1
May		♦Morris (W) F.A. 20p	16½	—	—		—	—
Jan.	Aug.	Moss (Robt.) 10p	130	2.6	♦3.3	2.7	3.6	14.0
July		Myson Grp 10p	121	12.5	2.63	2.6	3.1	15.6
Nov	June	♦NMW Computers	300	24.2	6.0	3.0	2.8	17.3
Mar.	Sept.	Nash Inds.	39	13.1	†0.5	—	1.8	—
—		Neil & Spencer 10p	21	3/81	♦♦	—	—	—
Jan	July	Newman Inds 10p	36	14.4	0.8	1.2	3.2	(34.6)
Apr	Sept	Noble & Lund 10p	130	10.3	0.7	4.3	0.8	42.8
April	Dec	Nolton	46	2.6	10.95	7.0	2.9	6.6
—		♦Norank Systems 5p	152	—	u3.0	♦	3.2	♦
Jan.	Aug.	Norcros	238xd	14.7	9.9	2.2	5.5	11.4
Oct.	April	Nu-Swift 5p	157	12.5	3.5	2.1	3.1	21.1
May	Nov	OCE 9pc Cnv 1987-92	£292	14.4	Q9%	—	f3.1	—
Feb.	Aug.	Oakwood Grp.	102	27.1	‡5.0	1.3	‡	14.2
Dec	July	Office & Elect	225	2.6	8.5	2.9	5.4	9.1
Apr	Oct	Oldacre 20p	180	10.2	♦5.0	♦	4.0	♦
—		♦Optometrics $0.01	38	—	—	—	—	—
May	Nov	Oriflame £1	795	28.4	24.5	2.1	4.3	15.4
Jan.	June	Overstone 12½pc	6	12.5	♦Q3.23c	1.9	14.1	3.7
		For Ozalid 9pc Cnv see OCE 9pc Cnv						
December		♦PCT Grp 10p	130	25.11	3.2	1.2	6.0	(27.1)
April		PLM 'B' Sk 25	617½	3.4	Q23.2%	0.3	3.8	—
June	Dec	PSM Intl.	166	2.6	5.5	2.1	4.7	12.6
June		♦Pacer Systems $0.02	200	25.4	L03.84c	3.4	1.3	22.3
Apr.	Dec.	♦Pacific Sales 10p	62	1.4	3.0	2.1	6.8	8.1
May	Nov	Park Place 10p	330	1.4	♦16.25	1.9	2.7	27.7
Apr	Nov	Parker Knoll 'A'	485	1.4	†9.5	2.9	3.3	14.7
February		♦Parkfield Group 5p	530	23.12	†2.4	2.4	0.6	88.6
—		♦Pavion Intl.	32	—	—	—	—	8.5
Aug.	Feb.	Do 11pc CvLn '94-02	£162	10.2	Q11%	—	f11.3	—
June	Nov	Pearson	503	14.4	10.0	2.8	2.8	16.8
—		Peek Holdings 7p	18	—	—	—	—	—
Mar	Oct	Peerless	115	10.2	6.3	—	7.7	—
July	Nov	Pentland 10p	415xd	25.7	h0.75	22.4	0.3	23.5
May	Dec.	Photo-Me	£12	24.2	†5.08	8.3	0.6	-
Feb.	Aug.	Pilkington Br. £1	480	16.6	13.5	2.7	4.0	(8.7)
June	Dec.	Pitney-Bowes Cnv. Ln.	£388	16.6	Q5½%	—	1.4	—
Sept.	April	Plastic Const. 10p	76	24.2	2.8	2.0	5.2	13.3
—		Platignum 5p	9	3/82	ß—	—	—	14.2
Sept	Feb	♦Plaxton Ist.	160xd	14.7	3.08	♦	2.7	♦
—		Polymark 10p	34	9/81	ß—	—	—	—
June	Dec	Do. CnPfA £1	85	6.6	10%	—	16.6	—

INSURANCES

LEISURE

LEISURE—Continued

MOTORS, AIRCRAFT TRADES

Motors and Cycles

Commercial Vehicles

Components

Garages and Distributors

NEWSPAPERS, PUBLISHERS

PAPER, PRINTING, ADVERTISING

PROPERTY

PROPERTY—Continued

SHIPPING

SHOES AND LEATHER

SOUTH AFRICANS

TEXTILES

TOBACCOS

TRUSTS, FINANCE, LAND

Investment Trusts

INVESTMENT TRUSTS—Cont.

Finance, Land, etc

FINANCE, LAND—Cont.

OIL AND GAS

OVERSEAS TRADERS

PLANTATIONS

Rubbers, Palm Oil

Teas

MINES

Central Rand

Eastern Rand

Far West Rand

MINES—Continued

O.F.S.

Diamond and Platinum

Central African

Finance

Australians

Tins

Miscellaneous

NOTES

REGIONAL & IRISH STOCKS

"Recent Issues" and "Rights" Page 27 (International Edition Page 21)

This service is available to every Company dealt in on Stock Exchanges throughout the United Kingdom for a fee of £875 per annum for each security.

INTERNATIONAL APPOINTMENTS

AMP elects managing director

By Mark Westfield in Sydney

MR IAN STANWELL has been appointed managing director of AMP Society, Australia's largest institutional investor. Mr Stanwell is to succeed Mr Alan Coates, who is due to retire December.

Mr Stanwell, 49, has been head of the AMP investment division since late 1984, and has presided over a substantial shift of the society's investments offshore in that time.

The AMP controls investment funds of A$18bn of which A$1.5bn has been placed offshore over the past two years.

Mr Coates has been managing director since 1979 and was a member of the Campbell Committee, which in 1981 recommended a substantial deregulation of the Australian financial industry.

Omnicorp Investments

OMNICORP INVESTMENTS, the New Zealand investment company, has appointed Mr Grant McCrostie operations manager for the UK office it plans to open early next year, writes Dai Hayward from Wellington. Mr McCrostie will be responsible for setting up the office and investigating and developing investment opportunities in Britain and Europe for the Auckland-based company.

Lord Richardson takes on role at Chemical Bank

BY WILLIAM HALL IN NEW YORK

LORD RICHARDSON, the former Governor of the Bank of England, is joining the international advisory board of Chemical Bank, the big New York money centre bank, and will take over the chairmanship from Mr W. Michael Blumenthal, the former US Treasury Secretary, who is to remain on the advisory board.

Dr Fred Bergsten, a former assistant secretary of the US Treasury for international affairs, is also joining Chemical's 30-year-old international advisory board. The two new members replace Mr Roger Fauroux, chief executive of Compagnie de Saint-Gobain, the French state-owned glass and engineering group, and Mr Paul Hirsch, chairman of the Buenos Aires-based Consolidated Mining and Industries.

Lord Richardson, who served as Governor of the Bank of England from 1973 to 1983, was previously chairman of Schroders, the London merchant bank, and is vice chairman of the Bank for International Settlements, of Basle. Since stepping down as head of Britain's central bank he has taken on a number of advisory roles. He sits on the advisory board of Morgan Stanley, the New York investment bank, and is chairman of Morgan Stanley International, the holding company for the bank's principal overseas activities.

Dr Bergsten, who has made his name as an international economist in both the public and private sectors, has been director of the Institute for International Economics since 1981.

Chemical Bank's international advisory board has 21 members from 11 countries and meets roughly twice a year. Among other members are Mr George Ball, former senior managing director of Lehman Brothers Kuhn Loeb, the Wall Street investment house, Mr Shiro Inoue, senior adviser of Yamaichi Securities, one of the Big Four Japanese securities houses, and Dr Fritz Leutwiler, former president of the Swiss National Bank, the country's central bank.

* * *

AMERICAN EXPRESS BANK (AEB), the wholly owned, New York-based international banking arm of American Express Company, has announced the elections of Mr Andrew E. Kimball, Ms Joyce F. Fox, Mr Howard A. Law III and Mr Elie J. Baroudi as senior vice presidents.

Mr Kimball, 59, previously a first vice president, retains his responsibilities as chief planning officer.

Ms Fox, 55, formerly a first vice president and senior executive for loan quality control, becomes deputy head for global restructure and recovery.

Mr Law, 37, was first vice president and co-general manager and country head for AEB's subsidiary in Germany. As global centre head and co-general manager of the subsidiary, Mr Law will be responsible for the development and marketing of the bank's global products and services out of Frankfurt.

Mr Baroudi, 40, formerly first vice president and chief operating officer for Egyptian American bank (EAB), the bank's wholly owned subsidiary based in Cairo is to be managing director of EAB.

* * *

E. F. HUTTON, the Wall Street securities house, has appointed Mr John N. M. Derosier, a senior vice president of its E. F. Hutton and Company subsidiary, head of the mergers and acquisitions group, in succession to Mr Daniel Good, who has resigned, reports Reuter from New York.

Top move in Japan by Merrill Lynch

BY OUR FINANCIAL STAFF

MERRILL LYNCH Capital Markets has announced that Mr Hisashi Moriya is to move from the concern's New York office to Tokyo to take up the position of resident managing director, Merrill Lynch Japan.

Mr Moriya joined Merrill Lynch from Becker Paribas where he was managing director responsible for international investment banking operations. He is expected to join Merrill Lynch Japan this summer.

He is to work with Mr John A. Williams, president and chief executive of Merrill Lynch Japan, as senior Japanese representative on business and country maters. He will also serve as a banker working with Mr Jerome Corcoran, a Merrill Lynch Capital Markets managing director and director of investment banking for Merrill Lynch Japan. Mr Moriya will advise the firm on strategy and policy matters and join Mr Williams and Mr Tetsundo Iwakuni on Merrill Lynch's international strategy committee.

Mr Iwakuni, recently transferred to New York and elected senior vice president, Merrill Lynch Capital Markets, takes up responsibility for bringing financial ideas from the Japanese markets to clients in North America and working with relationship managers in North America and Europe to assist them in the development of the commercial interests of their clients in Japan through acquisitions, joint ventures and similar arrangements. He is also to work with Japanese clients in developing their interests in the US.

Kyocera revises chief posts

BY OUR FINANCIAL STAFF

KYOCERA CORPORATION, the Japanese maker of ceramic, electronic parts, has elected Mr Kinju Anjo, 52, to president, from October 1, in succession to Mr Kazuo Inamori, who is to concentrate on another position he holds, that of chairman.

Mr Inamori has been president of the company for 20 years. He says that he is to deal with international affairs and business relating to the Kyocera-backed Daini-Denden, the telecommunications company which plans to build a network to compete with Nippon Telegraph and Telephone.

WEEK'S FINANCIAL DIARY

The following is a record of the principal business and financial engagements during the week. The board meetings are mainly for the purpose of considering dividends and official indications are not always available whether dividends concerned are interims or finals. The sub-divisions shown below are based mainly on last year's timetable.

TODAY

COMPANY MEETINGS—

[illegible]

BOARD MEETINGS—

[illegible]

DIVIDEND & INTEREST PAYMENTS—

[illegible]

TOMORROW

COMPANY MEETINGS—

[illegible]

BOARD MEETINGS—

[illegible]

DIVIDEND & INTEREST PAYMENTS—

A-R Television 5.95pcPf 2.975p
Bank of Montreal Fltg Rate Dbs Series 9 1996 $178.52
Bank of Nova Scotia 17 cts
Chapman Inds 6.1p
Davies and Newman 7p
Die Erste Osterreich Spa-Casse Sub Fltg Rate Notes Jan 1992 $41.479166
Fleming Universal Invest Trust 4p
Italian Intnl Bank Fltg Rate Notes 1991 $421.08
London and Clydeside 1.7p
Samuel (H.) 3.17p. A N-vtg 3.17p
Sanwa Intnl Finance Gtd Fltg Rate Notes 2004 $414.79
Tebos De Acero De Mexico SA Fltg Rate Notes 1989 $238.82

WEDNESDAY JULY 30

COMPANY MEETINGS—

Bellgrave, Connaught Rooms, Great Queen Street, WC. 10.00
Burnett and Hallamshire, Cutlers Hall, Church Street, Sheffield, 11.00
Caffyns, Queens Hotel, Marine Parade, Eastbourne, 3.00
Cape Inds, Iver Lane, Uxbridge, Middlesex, 12.00
Coalite, Savoy Hotel, Strand, WC. 12.00
Halma, Dorchester Hotel, Park Lane, W. 12.00
Holt Lloyd Intnl, Lloyds House, Alderley Road, Wilmslow, Cheshire, 2.30
LCP, Pensnett Estate, Kingswinford, West Midlands, 12.00
New Throgmorton Trust (1983), Royal London House, 22-25 Finsbury Square, EC. 12.30
Pilkington Bros, Prescot Road, St Helens, Merseyside, 2.30
Powell Duffryn, London Hilton, Park Lane, W. 12.00
600 Group, Inn on the Park, Hamilton Place, W. 11.30
Slaters Food Products, Briscoe Lane, Newton Heath, Manchester, 11.30
Southend Stadium, 34 Park Street, W. 10.00
Turnbull Scott, General Council of British Shipping, 30-32 St Mary Axe, EC. 12.00
Willaire Systems, Bedford Moat House, 2 St Mary's Street, Bedford, 12.00

BOARD MEETINGS—

Finals:
Greggs
MS International
Mercantile House
Stewart Zigomala
Zetters

Interims:
CSC Investment Trust
Jacobs (John I.)
Mount Charlotte Investments
Somportex
Wace

DIVIDEND & INTEREST PAYMENTS—

Caffyns 3.3p
Cranswick Mill 2.66p
Dow Chemical 45 cts
Electronic Data Processing 0.6p
Gable House Props 1.45p
Habit Precision Engineering 0.7p
IBL 0.8p
Jarvis Porter 2p
Jersey General Invest Trust 8.75p
Korea Exchange Bank Fltg Rate Notes 1995 $421.08
Leumi Intnl Invests Gtd Fltg Rate Notes 1990 $41.79
Monks Invest Trust 1.5p
Nova Scotia Power 9¼pcSinking Fund Dbs 1989 4⅝pc
Plaxtons (GB) 1.5p
Stainless Metalcrafts 2p
Storehouse 9pcLn 4.5p
TR Property Invest Trust 2.5p
Turnbull Scott 6p. A N-vtg 6p

THURSDAY JULY 31

COMPANY MEETINGS—

Baker Perkins, Hyde Park Hotel, Knightsbridge, SW. 12.15
Bristol Oil and Minerals, Kingsnorth Industrial Estate, Kingsnorth-on-the-Medway, Rochester, Kent, 12.00
British Steam Specialities, Grand Hotel, Leicester, 12.00
CPS Computer, Ladbroke Mercury Hotel, Longbridge Roundabout, Warwick, 11.00
Cook (William) (Sheffield), Parkway Steel Foundry, Parkway Avenue, Sheffield, 12.00
Craig and Rose, 172 Leith Walk, Edinburgh, 10.30
Edbro, Charing Cross Hotel, Strand, WC. 11.30
Equity and General, Chartered Institute of Public Finance and Accountancy, 3 Robert Street, WC. 10.30
Hargreaves, [illegible] Hall, Bramham, Wetherby, West Yorkshire, 12.00
Illingworth Morris, Barbican Centre, Silk Street, EC. 12.00
Rolfe and Nolan Computer Services, Great Eastern Hotel, Liverpool Street, EC. 12.00
Rothmans Intnl, Dorchester Hotel, Park Lane, W. 12.00
Scott Greenham, Savoy Hotel, Strand, WC. 11.00
South Staffordshire Waterworks, Green Lane Walsall, 12.30
Sunleigh Electronics, Richmond Hill Hotel, Richmond, Surrey, 10.00
Sutcliffe, Speakman, Bolton Crest Hotel, Beaumont Road, Bolton, 12.30
TR Natural Resources Invest Trust, Mermaid House, 2 Puddle Dock, EC. 12.30
Wiggins, London Press Centre, 76 Shoe Lane, EC. 12.00
Woolworth, Butchers' Hall, 87 Bartholomew Close, EC. 12.00

BOARD MEETINGS—

Finals:
A & M
AHM
Cray Electronics
Gibbs Mew
ML Holdings
Marler Estates
Mid Wynd International Investment Trust
PCT
Ransom (William)
Smith (David S.)

Interims:
Aaronson Brothers
Argyle Trust
Black (Peter)
Jebsens Drilling
Johnstone's Paints
Lex Service
Macarthys Pharmaceuticals
Midland Bank

DIVIDEND & INTEREST PAYMENTS—

Airflow Streamlines 10pcPf 5p
Airsprung Group 2.75p
Arbuthnot Yen Bond Fund Pf Y1
Associated Fisheries 8¼pcLn 1991-96 4⅛pc
Attwoods 1.25p
BETEC 8pcPf 1991-93 4p
Banco de Chile Fltg Rate Notes 1986 $41.79
Bank of Nova Scotia Fltg Rate Db 2000 £267.18
Beattie (James) 6pcPf 2.1p
Beazer (C. H.) 8½pcLn 2000 4¼pc
Belgrave Hldgs 7pcPf 4.9p
Bentalls 5½pcPf 1.925p
Bilton (Percy) 7.98p. Accum 0.10p
Biomechanics Intnl 8pcLn 1991 5.22pc
Bramall (C. D.) 13pcLn 1983 03 6½pc
Brettle (George) 9¼pcLn 1987-92 4⅝pc
Britannia Arrow 9pcLn 1995-2000 4½pc
British Car Auction 1.5p
British Dredging 8pcLn 1993-98 4pc
British Petroleum 8pc1stPf 2.8p. 9pc2ndPf 3.15p
British Steam Specialties 5p
Brixton Estate 6pc1stMtDb 1983-88 3pc
Brunner Invest Trust 1.1p
Business Mortgages Trust 0.75625p
Campbell Soup 33 cts
Carless Capel and Leonard 1.75p
Carlton Communications 2.6p
Chase Manhattan Overseas Bank Corpn Fltg Rate Notes 1993 $41.16
Chemical New York Corpn Fltg Rate Senior Notes 1999 $61.35
Chloride 6pcPf 2.1p
Citicorp Bank Corpn. Fltg Rate Notes 30/1/97 $182.08
Combined English Stores 7¾pcPf 2.7125p
Croda Chemicals Intnl 8pcPf 2.8p
Crystalate 1.85p
Derwent Valley 10pcPf 5.81p

[illegible]

Western Ground Rents 3½pc1stDb 1956-1991 1¾pc
Wolseley 3.5p. 7pcDb 3½pc. 10pcDb 1990-95 5pc

FRIDAY AUGUST 1

COMPANY MEETINGS—

BPB Inds, Inn on the Park, Hamilton Place, W. 12.00
Bulmer and Lumb, Victoria Hotel, Bradford, 3.00
Celestion Inds, Brown's Hotel, Dover Street, W. 12.00
Cropper (James), Burnside Mills, Kendal, 10.30
Electrocomponents, Barber Surgeons' Hall, Monkwell Square, EC. 12.00
Finlay (James), Trades Hall of Glasgow, 85 Glassford Street, Glasgow, 12.00
GEI Intnl, Savoy Hotel, Strand, WC. 12.00
Mitchell, Somers, Painters' Hall, 9 Little Trinity Lane, EC. 12.00
Premier Cons Oilfields, Insitute of Chartered Accountants, Moorgate Place, EC. 12.00
Renold, Hyde Park Hotel, Knightsbridge, SW. 11.45
Rotaprint, Cumberland Road, Honeypot Lane, NW. 11.30
Scapa, Moat House Hotel, Yew Tree Drive, Blackburn, 12.00

BOARD MEETINGS—

Finals:
Forminster
Neepsend

Interims:
Cardiff Property
Consolidated Term Investments

DIVIDEND & INTEREST PAYMENTS—

Allied London Props 10pcPf 5p
American Information Tech Corpn 177 cts
American Trust 5pcPf 1.75p
Anglo American Corpn SA 6pcPfd 1.56682p
Anglovaal 330 cts. A 330 cts. 5pcPf 5 cts
Aquascutum 7½pcPf 2.625p
Atlantic Assets Trust 5pcPf 1.75p
Australia (Commonwealth of) 8½pcBds 4¼pc
BBA 5pcPf 1.75p
Bellsouth 76 cts
Blyvooruitzicht Gold Mining 26.43116p
Brown (Matthew) 3p
Caledonia Invests 3p
Cambridge Water 3.5pc 1.75p. 4.2pcPf 1984-86 2.1p
Century Oils 3.5p
City of Aberdeen Land 4pcPf 1.4p
City Site Estates 0.47p
Consolidated 4pcLn 2pc
Continuous Stationery 0.45p
Dalgety 4.85pcPf 2.425p
Daniell and Sons Breweries 4½pc1stDb 2¼pc
Dominion Intnl 3p
Dover Harbour Board 4¾pc2ndDb 2⅜pc
Drayton Consd Trust 4½pcDb 2¼pc
Dunlop Textiles 6½pcPf 2.275p
Eastern Transvaal Cons Mines 150 cts
Edinburgh American Assets Trust 4½pcPf 1.575p
Eldridge Pope A 3.25p
Electric and Gen Invest 7¼pcDb 1987-91 3⅝pc
Exchequer 10pc 1989 5pc
F and C Alliance Invest 6pcDb 1985-90 3pc
First Scottish American Trust 3½pcPf 1.75p
Fleming Mercantile Invest Trust 3.5pcPf 1.75p. 2.8pcPf 1.4p
Foreign and Colonial Invest Trust 5pcDb 1985-90 2½pc. 6¼pcDb 1987-92 3⅛pc
Gowett Strategic Invest Trust 5pcPf 1.75p
Great Ouse Water Authority 5¼pc 1986-88 2⅝pc
Hartebeestfontein Gold Mining 65 cts
Hawker Siddeley 5½pcPf 1.925p
Merchant Tst 4½pcPf 1.575p
Metropolitan Water New River 3pcDb 1½pc
Middle Witwatersrand (WA) 100 cts. 8pcPf (R1) 4 cts
Midland Marts 2.75p
Millward Brown (10p) 1p
Newcastle Gateshead Water 4pcDb 2pc. 5pcDb 2½pc. 8pcDb 1992-94 4pc. 10pcDb 1992-94 5pc. 11½pcDb 2004 5¾pc
Next 6pcPf 2.1p. 7pcPfA 2.45p. 10pcPfB 1.75p
Nicor 45 cts
NYNEX 87 cts
Outwich Inv Tst 3.5pcPf 1.75p. 4.2pcPf 2.1p. 5.425pcPf 2.7125p. 10pcPf 5p. 5½pcDb 1985-90 2¾pc. 6½pcDb 1985-90 3¼pc
Pall ($0.25) 9.5cts
Quebec Central Railway 1stDb 2pc
Scottish Agric Sec 14pcDb 1993 7pc
Shell Transport Trading 7pc2ndPf 2.45p
Slough Ests 7½pc1stDb 1985-90 3¾pc
Southwestern Bell ($1) 160cts
Sutton Dist Water 7pc 3.5p. 4.9pc 2.45p. 3.15pcPf 1.575p
TR Ind Gen 5½pcDb 1982-87 2¾pc
Tesco (5p) 3.7p
Torchmark ($1) 15cts
Union Int 10pcPfA 3.5p
United States Deb 4.6pcPf 2.3p. 4¾pcDb 1999 2⅜pc. 5¼pc2ndDb 1999 2⅝pc
Ward White CnvRedPf 1.6274p
Westpool Inv Tst 5pcDb 1985-90 2½pc. 5¾pcDb 1983-88 2⅞pc
Whitbread 4½pc2ndPf (£1) 1.575p. Whitbread Inv. 6½pcDb 1987-92 3¼pc
Wiggins 0.5p
Witan Inv 2.7pcPf 1.35p. 6¾pcDb 1990-95 3⅜pc
Young Brewery 4.2pcPf 2.1pc. 9pcPf 4.5p

SATURDAY AUGUST 2

DIVIDEND AN DINTEREST PAYMENTS

Bulmer and Lumb 3.35p
Southend Stadium 0.56p. Do. Pf 3.55p
Herts CC 6¾pcRed 1985-87 3⅜pc
Holt Lloyd Int. (10p) 2.35p
Hospital Corp America ($1) 16.8cts
Imperial Chemical Inds. 5pcPf (£1) 1.75p. 5½pcLn 1994-2004 2¾pc. 10¾pcLn 1991-98 5⅜
Insilco ($1) 25cts
Jenners, Princes Street, Edin. 10pcPf 5p
Laird 6¼pcDb 1981-86 3⅛pc
Law Deb. 3.85pcPf 1.925p
Lewis (J.) 5pc1stPf 1.75p. 7pcPf 2.45p
Lincoln National Corp ($1.25) 50cts
Longton Ind 3p
Manchester Corp 1891 3pcRed (1941 1½pc

WORLD STOCK MARKETS

AUSTRIA

BELGIUM/LUXEMBOURG

DENMARK

FRANCE

SWITZERLAND

GERMANY

NETHERLANDS

SWEDEN

SOUTH AFRICA

AUSTRALIA

HONG KONG

ITALY

NORWAY

SINGAPORE

JAPAN

SPAIN

NOTES—Prices on this page are as quoted on the individual exchanges and are last traded prices. § Dealings suspended. xd Ex dividend. xc Ex scrip issue. xr Ex rights. xa Ex all. * Price in Danish Kroner.

CANADA

TORONTO
Closing prices July 25

MONTREAL
Closing prices July 25

OVER-THE-COUNTER Nasdaq national market, closing prices July 25

Continued from Page 29

Indices

NEW YORK

DOW JONES	July 25	July 24	July 23	July 22	July 21	1986 High	1986 Low	Since Cmp High	Since Cmp Low
◆Industr'ls	1810.04	1791.62	1798.37	1795.13	1779.11	1909.03 (2/7)	1502.29 (22/1)	1909.03 (2/7/86)	41.22 (2/7/32)
H'me Bnds	90.41	90.34	91.06	91.45	91.41	91.84 (21/4)	83.78 (14/1)	—	—
Transport	720.50	715.38	726.38	729.75	720.38	850.64 (31/3)	686.97 (9/1)	850.64 (31/3/86)	12.32 (8/7/32)
Utilities	207.45	205.42	205.42	205.31	203.61	207.45 (25/7)	169.47 (22/1)	207.45 (25/7/86)	10.5 (8/4/34)

◆Day's High 1821.57 (1806.81) Low 1791.06 (1778.68)

STANDARD AND POOR'S	July 25	July 24	July 23	July 22	July 21	1986 High	1986 Low	Since Cmp High	Since Cmp Low
Composite‡	240.22	237.95	238.67	238.18	236.24	252.70 (2/7)	203.49 (22/1)	252.70 (2/7/86)	4.40 (1/6/32)
Industrials	265.32	262.72	263.65	263.27	261.13	282.24 (2/7)	224.88 (22/1)	282.24 (2/7/86)	3.62 (21/6/32)
Financials	28.68	28.41	28.48	28.41	28.13	31.18 (14/5)	25.19 (22/1)	31.13 (14/5/86)	8.64 (1/10/74)
N.Y.S.E. COMPOSITE	138.41	137.25	137.67	137.38	136.25	145.15 (2/7)	117.75 (22/1)	146.15 (2/7/86)	4.46 (28/4/42)
AMEX MKT VALUE	266.31	265.99	267.20	266.93	266.38	285.19 (25/6)	240.30 (4/2)	285.19 (25/6/86)	29.18 (9/12/72)
NASDAQ OTC COMP.	379.83	378.74	379.85	379.87	379.46	411.16 (3/7)	323.01 (9/1)	411.16 (3/7/86)	54.87 (3/10/74)

DIVIDEND YIELDS	July 18	July 11	June 27	June 20	year ago (approx)
Dow Industrial	3.81	3.72	3.59	3.66	4.81
	July 16	July 9	July 2	June 25	
S and P Industrial	3.13	3.00	2.88	2.93	3.63
S and P Ind P/E ratio	17.13	17.68	18.61	18.32	12.20

TRADING ACTIVITY

Volume† Millions	July 25	July 24	July 23
New York	131.96	134.71	133.27
Amex	9.66	9.64	10.18
O.T.C.	—	113.51	101.61

New York	July 25	July 24	July 23
Issues Traded	1,944	1,960	1,960
Rises	949	649	854
Falls	582	916	735
Unchanged	413	395	371
New Highs	—	80	88
New Lows	—	61	47

CANADA

TORONTO	July 25	July 24	July 23	July 22	July 21	1986 High	1986 Low
Metals & Minerals	—	1984.7	2015.9	2007.6	1968.9	2442.85 (21/5)	1954.0 (18/7)
Composite	2957.5	2952.6	2966.5	2971.1	2968.1	3129.11 (18/4)	2754.0 (17/2)
MONTREAL Portfolio	1481.75	1479.99	1487.10	1485.74	1486.17	1623.33 (16/4)	1388.80 (22/1)

NEW YORK ACTIVE STOCKS

Friday	Stocks traded	Closing price	Change on day		Stocks traded	Closing price	Change on day
P Scv Nm	3,336,600	35¼	+⅛	LTV Corp	1,773,200	3¼	−⅛
Santa Fe	3,159,900	27½	−⅛	ATT	1,634,500	24¼	+⅜
Hammill P	2,038,900	53¾	+5¾	Safeway	1,345,700	61⅞	+1⅞
Allied Sig	1,920,700	42	+3	Lilco	1,287,500	12⅝	+⅜
Chase Man	1,919,300	40⅞	+1	Pac Gas El	1,277,800	25¾	+⅜

	July 25	July 24	July 23	July 22	1986 High	1986 Low
AUSTRALIA						
All Ord. (1/1/80)	1118.8	1128.2	1137.7	1136.7	1247.8 (7/5)	1018.8 (2/7)
Metals & Mnls. (1/1/80)	481.1	496.1	502.1	506.3	602.8 (24/3)	481.1 (20/5)
AUSTRIA						
Creditbk Aktien (30/12/84)	229.79	231.35	232.96	235.25	286.64 (23/4)	226.56 (6/6)
BELGIAN						
Brussels SE (1/1/80)	3646.74	3643.52	3638.08	3642.06	3746.88 (7/7)	2786.91 (15/1)
DENMARK						
Copenhagen SE (3/1/83)	202.59	203.30	205.88	206.92	250.78 (18/4)	202.59 (25/7)
FRANCE						
CAC General (31/12/82)	N/A	374.9	367.1	363.7	411.3 (15/5)	257.8 (2/1)
Ind Tendance (31/12/82)	144.0	143.1	139.6	138.1	154.8 (12/5)	101.8 (2/1)
GERMANY						
FAZ Aktien (31/12/58)	616.31	610.06	594.62	588.82	758.88 (17/4)	588.82 (22/7)
Commerzbank (1/12/53)	1851.70	1830.5	1786.8	1762.4	2278.8 (17/4)	1762.4 (22/7)
HONG KONG						
Hang Seng Bank (31/7/64)	1843.57	1836.09	1816.88	1791.53	1865.65 (7/5)	1559.94 (18/3)
ITALY						
Banca Comm Ital. (1972)	717.86	714.82	692.11	682.85	808.29 (28/5)	454.67 (24/1)
JAPAN**						
Nikkei (16/5/49)	18050.38	18026.2	17880.1	17630.5	18050.58 (25/7)	12881.5 (21/1)
Tokyo SE New (4/1/68)	1452.02	1443.91	1421.51	1385.02	1452.02 (25/7)	1025.85 (21/1)
NETHERLANDS						
ANP.CBS General (1970)	282.2	283.5	284.3	282.0	294.4 (11/7)	240.4 (8/3)
ANP.CBS Indust (1970)	283.7	283.9	284.4	282.8	295.7 (11/7)	254.0 (6/3)
NORWAY						
Oslo SE (4/1/83)	336.07	339.07	345.69	347.83	402.81 (18/1)	336.07 (25/7)
SINGAPORE						
Straits Times (30/12/66)	726.92	725.43	728.24	728.78	778.89 (25/6)	563.34 (28/4)
SOUTH AFRICA						
JSE Gold (28/9/78)	—	1293.2	1297.1	1335.8	1333.6 (22/7)	1108.1 (21/4)
JSE Indust (28/9/78)	—	1211.8	1215.5	1214.8	1219.2 (21/7)	1018.5 (2/1)
SPAIN						
Madrid SE (30/12/85)	(c)	172.33	172.18	172.15	194.77 (12/5)	100.85 (3/1)
SWEDEN						
Jacobson & P (31/12/56)	2455.18	2462.14	2475.27	2456.80	2518.56 (7/7)	1729.67 (28/1)
SWITZERLAND						
Swiss BankCpn (31/12/58)	—	509.2	502.0	505.4	625.5 (8/1)	502.0 (23/7)
WORLD						
M.S. Capital Intl. (1/1/70)	—	328.5	325.7	324.5	331.4 (4/7)	249.8 (23/1)

* Saturday July 19: Japan Nikkei 17,841.3. TSE 1,402.06.

Base value of all Indices are 100 except Brussels SE—1,000; JSE Gold—255.7, JSE Industrial—264.3, and Australia, All Ordinary and Metals—500. NYSE All Common—50; Standard and Poors—10; and Toronto Composite and Metals—1,000. Toronto indices based 1975 and Montreal Portfolio 4/1/83. † Excluding bonds. ‡ 400 Industrials plus 40 Utilities, 40 Financials and 20 Transports. c Closed. u Unavailable.

Closing prices, July 25

NEW YORK STOCK EXCHANGE COMPOSITE CLOSING PRICES

12 Month High	12 Month Low	Stock	Div.	Yld.	P/E	Sls 100s	High	Low	Close Quote	Ch'ge Prev. Close
26½	13½	AAR s	.44	2.0	17	25	22⅜	22	22	-⅛
30	21¾	ADT	.92	3.9		202	23½	23⅜	23⅜	
33	11½	AFG s			17	685	30½	30	30¼	+⅛
25⅜	13¾	AGS			13	311	18	17⅞	18	
15	9⅞	AMCA			288	1	11½	11½	11½	
60⅝	37½	AMR			13	5492	50¾	49⅛	50⅛	+⅞
27½	23¼	ANR pf2.67		10		4	26¼	26¼	26¼	+¾
24	19¼	ANR pf2.12		9.4		4	22½	22½	22½	-½
12⅞	8½	APL			6	14	11½	11⅜	11½	+½
16¾	11⅛	ARX	.71t	6.2	10	40	11½	11¼	11½	+¼
51	28¾	ASA	2a	6.5		434	30¾	30⅜	30¾	
18⅜	10½	AVX		2.9		425	11¼	10¾	11	-¼
32	22⅝	AZP	2.72	8.9	8	1547	31	30⅝	30⅝	-⅜
55	26⅜	AbtLb s .84		1.7	23	2894	50⅜	49⅝	50¼	+¼
32	19⅝	AccoWd .56		2.1	18	79	27	26⅞	26⅞	-⅛
16⅞	9⅛	AcmeC .40		4.1		940	9¾	9½	9¾	+⅛
9¼	7	AcmeE .32b		4.0	20	3	8	8	8	+⅛
20⅞	17	AdaEx 1.90e		9.2		42	20⅞	20⅝	20¾	
33⅜	18	AdmMl .40		1.3	14	41	31½	31⅛	31½	+½
20⅜	11¼	AdvSys .83t		4.9	15	89	16⅞	16⅝	16⅞	
32⅞	14⅛	AMD				4391	15⅝	14½	15⅛	+⅝
12⅝	6¾	Adobe n			35	6⅞	6	6⅝	6¾	
18⅜	14⅝	Adob pf1.84		12		17	14¾	14¾	14¾	
20½	15¼	Adob pf2.40		14		6	17⅛	17⅛	17⅛	-⅛
18⅜	7⅜	Advest .12a		.8	13	123	16⅛	15⅞	16	-⅛
66¼	42¼	AetnLf 2.64		4.4	11	3921	60⅝	59⅜	60½	+1½
57½	51½	AetL pf4.28e		8.2		124	52½	52⅜	52⅜	-⅛

Continued on Page 29

NYSE COMPOSITE CLOSING PRICES

Continued from Page 28

AMEX COMPOSITE CLOSING PRICES

Closing prices July 25

OVER-THE-COUNTER

Nasdaq national market, closing prices July 25

Sales figures are unofficial. Yearly highs and lows reflect the previous 52 weeks plus the current week, but not the latest trading day. Where a split or stock dividend amounting to 25 per cent or more has been paid, the year's high-low range and dividend are shown for the new stock only. Unless otherwise noted, rates of dividends are annual disbursements based on the latest declaration.

a-dividend also extra(s). b-annual rate of dividend plus stock dividend. c-liquidating dividend. cld-called. d-new yearly low. e-dividend declared or paid in preceding 12 months. g-dividend in Canadian funds, subject to 15% non-residence tax. i-dividend declared after split-up or stock dividend. j-dividend paid this year, omitted, deferred, or no action taken at latest dividend meeting. k-dividend declared or paid this year, an accumulative issue with dividends in arrears. n-new issue in the past 52 weeks. The high-low range begins with the start of trading. nd-next day delivery. P/E-price-earnings ratio r-dividend declared or paid in preceding 12 months, plus stock dividend. s-stock split. Dividends begin with date of split. sls – sales. t-dividend paid in stock in preceding 12 months, estimated cash value on ex-dividend or ex-distribution date. u-new yearly high. v-trading halted. vi-in bankruptcy or receivership or being reorganised under the Bankruptcy Act, or securities assumed by such companies. wd-distributed. wi-when issued. ww-with warrants. x-ex-divident or ex-rights. xdis-ex-distribution. xw-without warrants. y-ex-dividend and sales in-full. yld-yield. z-sales in full.

Continued on Page 27

CURRENCIES, MONEY and CAPITAL MARKETS

FOREIGN EXCHANGES

Technical factors lift dollar

BY COLIN MILLHAM

The dollar survived a fairly eventful week without showing too much change. By the end of the week the foreign exchange market had become largely technical by way of trading patterns, and this produced a small dollar recovery.

Barclays Bank commented that heavy selling the previous week had left gaps for the chart followers, where certain levels were insufficiently traded on the way down to DM 2.13.

The dollar's slight recovery was therefore regarded as purely technical, with dealers continuing to believe an attack on DM 2.12 would come sooner, rather than later. There were some cautious voices, however, suggesting the US currency was heading into another period of consolidation, before retreating again.

It should also be remembered the dollar rose from DM 2.1740 on May 12 to DM 2.3250 by the end of the month, even though the overall downward trend was still intact.

The ruling factor is the US trade deficit and there is an obvious lag between the time when the dollar has fallen far enough to begin to correct the situation and this trend showing up in the monthly trade figures.

There is no great optimism that Wednesday's US trade figures for June will show much improvement over the deficit of $14.2bn in May.

Another major factor in determining the dollar's value is the level of US interest rates in relation to those in other leading industrial nations.

Economic performance plays a large part in determining the markets' perception of interest rate trends, and at the moment US growth is regarded as sluggish, and likely to remain so, suggesting continued downward pressure on rates.

Stockbrokers James Capel suggested a rumour that the US Administration would forecast 4.5 per cent growth for 1987 was much too optimistic, and was probably a political move ahead of elections in November. The Federal Reserve recently revised down its forecast of 1986 growth to 2½ per cent to 3 per cent from 3 per cent to 3½ per cent, and last Tuesday it was announced that second quarter gross national product growth was only 1.1 per cent.

The impact on the dollar was slight, however, since a figure of about 1 per cent had been widely forecast, following earlier data pointing to a slow down in growth for the period.

There was a tendency for the dollar to rise on the GNP news, as a result of shortcovering after the upward revision to 3.8 per cent from 2.9 per cent in first quarter growth.

Two leading US officials commented on the dollar; the trade figures; and among other things interest rates last week, but the net effect seemed to be confusion, rather than clarification.

Mr Paul Volcker, chairman of the Federal Reserve Board, in a speech to Congress, warned about the dangers of placing too much weight on depressing the dolar. Mr Malcolm Baldrige, US Commerce Secretary, disagreed, and said he was confident the weaker dollar signalled a coming improvement in the trade balance.

Mr Volcker called on other countries to boost economic growth, and is obviously keen for Japan and West Germany to follow the US lead in cutting their discount rates. An immediate response from Frankfurt is unlikely however, where it was announced the central bank money stock rose at an annualised 7 per cent in July, against a target range of 3.5 per cent to 5.5 per cent. The Bundesbank has regarded excess money supply growth as a reason not to cut interest rates, but recently suggested matters were improving.

This week will see whether figures on US leading indicators; merchandise trade; and unemployment stimulates renewed activity on the foreign exchanges, or whether the market sinks into a period of summer lethargy.

£ IN NEW YORK

July 25	Close	Prev. close
£ Spot	$1.4780-1.4790	$1.4810-1.4820
1 month	0.43-0.40pm	0.42-0.41pm
3 months	1.30-1.28pm	1.22-1.20pm
12 months	4.40-4.30pm	4.48-4.37pm

Forward premiums and discounts apply to the US dollar

CURRENCY MOVEMENTS

OTHER CURRENCIES

CURRENCY RATES

July 25	Bank rate %	Special Drawing Rights	European Currency Unit
Sterling	—	0.798147	0.665857
US $	6	1.18868	0.986823
Canadian $	8.57	*	1.36922
Austria Sch	4	N/A	14.9504
Belgian Fr	8	N/A	43.8470
Danish Kr	7	9.60578	7.99129
D'mark	3½	N/A	2.12512

* CS/SDR rate for July 23: 1.65880.

POUND SPOT—FORWARD AGAINST POUND

FORWARD RATES AGAINST STERLING

DOLLAR SPOT—FORWARD AGAINST DOLLAR

EMS EUROPEAN CURRENCY UNIT RATES

	Ecu central rates	Currency amounts against Ecu July 25	% change from central rate	% change adjusted for divergence	Divergence limit %
Belgian Franc	43.6761	43.8470	+0.39	+0.86	±1.5388
Danish Krone	7.91896	7.99129	+0.91	+1.38	±1.6408
German D-mark	2.13834	2.12512	−0.62	−0.15	±1.1202
French Franc	6.96280	6.87076	−1.32	−0.85	±1.3701
Dutch Guilder	2.40935	2.39344	−0.66	−0.19	±1.5081
Irish Punt	0.712956	0.713796	+0.12	+0.59	±1.6689
Italian Lira	1496.21	1459.02	−2.49	−2.36	±4.0788

Changes are for Ecu, therefore positive change denotes a week currency. Adjustment calculated by Financial Times.

EURO-CURRENCY INTEREST RATES

Long-term Eurodollars: two years 6⅞-7⅛ per cent; four years 7⅝-7⅞ per cent; five years 7⅞-8⅛ per cent. Short-term rates are call for US dollars and Japanese yen; others two days' notice.

EXCHANGE CROSS RATES

LIFFE LONG GILT FUTURES OPTIONS

LIFFE US TREASURY BOND FUTURES OPTIONS

LIFFE £/$ OPTIONS

LONDON SE £/$ OPTIONS

PHILADELPHIA SE £/$ OPTIONS

LIFFE—EURODOLLAR OPTIONS

LONDON

CHICAGO

CURRENCY FUTURES

MONEY MARKETS

No prospect of early rate cut

UK clearing bank base lending rate, 10 per cent since May 22

Interest rates showed very little movement on the London money market last week, and the discount houses continued to see little hope of any early reduction in clearing bank base rates. As optimism about lower rates has faded market rates have moved up into line with the Bank of England's intervention rates. As this has happened the houses have decided not to continue running a large amount of long dated band 4 eligible bills. This paper was about to slip out of band 4 and into band 3, where it would have commanded a lower intervention price, and with no prospect of an early cut in interest rates was therefore sold.

The performance of sterling did not inspire confidence. The pound fell to a record low against the D-Mark as North Sea oil prices declined to under $9 a barrel. Opec ministers meet this week, but there is little hope that oil production will be cut back into line with demand. The UK trade deficit of £623m in June and the current account surplus of £77m was very much in line with expectations and had no impact, but the nervousness surrounding sterling was not helped by the Government's problems involving South Africa and the Commonwealth and the critical report of the House of Commons defence committee on the Westland affair.

But the general view was that the authorities did not wish to see higher interest rates, any more than lower rates. This was underlined by the terms of a bill repurchase agreement offered to the market on Thursday, which were regarded as broadly neutral.

WEEKLY CHANGE IN WORLD INTEREST RATES

LONDON	July 25	change	NEW YORK	July 25	change
Base rates	10	Unch'd	Prime rates	8	Unch'd
7 day interbank	10	−⅛	Federal funds	6¼	−⅛
3mth interbank	9½	Unch'd	3 Mth. Treasury Bills	5.97	+0.27
Treasury Bill Tender	9.5316	+0.0511	6 Mth. Treasury Bills	6.06	+0.36
Band 1 Bills	9⅞	Unch'd	3 Mth. C D	6.34	+0.02
Band 2 Bills	9[illegible]	Unch'd			
Band 3 Bills	9¾	Unch'd	FRANKFURT		
Band 4 Bills	9[illegible]	Unch'd	Lombard	5.5	Unch'd
3 Mth. Treasury Bills	9⅝	+⅛	One mth. Interbank	4.60	Unch'd
1 Mth. Bank Bills	9½	Unch'd	Three month	4.60	Unch'd
3 Mth. Bank Bills	9⅝	−[illegible]	PARIS		

NEW YORK RATES (4 pm)

BANK OF ENGLAND TREASURY BILL TENDER

	July 25	July 18
Bills on offer	£100m	£100m
Total of applications	£543.3m	£194m
Total allocated	£100m	£100m
Minimum accepted bid	£97.616	£97.595
Allotment at minimum level	8%	34%

FT LONDON INTERBANK FIXING

(11.00 a.m. July 25)

Three months US dollars		Six months US dollars	
bid 6⅛	Offer 6⅝	bid 6⅛	Offer 6⅝

The fixing rates are the arithmetic means, rounded to the nearest one-sixteenth, of the bid and offered rates for $10m quoted by the market to five reference banks at 11 am each working day.

LONDON MONEY RATES

MONEY RATES

Contracts and Tenders

Company Notices